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VOLUME 8.

SEVENTH SESSION OF THE TWELFTH PARLIAMENT

OF THE

DOMINION OF CANADA

SESSION 1917

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LIST OF SESSIONAL PAPERS

Arranged in Numerical Order, with their titles at full length; the dates when Ordered and when Presented to the Houses of Parliament; the Names of the Senator or Member who moved for each Sessional Paper, and whether it is ordered to be Printed or not Printed.

CONTENTS OF VOLUME 1.

(This volume is bound in three parts.)

1. Report of the Auditor General for the year ended 31st March, 1916, Volume 1, Parts a b and A to K; Volume II, Parts L to U; Volume III, Parts V to Z; Volume IV, Part ZZ. Presented by Sir George Foster April 19, 1917.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 2.

2. The Public Accounts of Canada, for the fiscal year ended March 31, 1916. Presented by Sir Thomas White, February 1, 1917...*Printed for distribution and sessional papers.*

3. Estimates of sums required for the service of the Dominion for the year ending on the 31st March, 1918, and in accordance with the provisions of "The British North America Act, 1867," the Governor General recommends these Estimates to the House of Commons. Presented by Sir Thomas White, January 31, 1917.
Printed for distribution and sessional papers.

4. Supplementary Estimates of sums required for the service of the Dominion for the year ending on the 31st March, 1917, and, in accordance with the provisions of "The British North America Act, 1867," the Governor General recommends these Estimates to the House of Commons. Presented by Sir Thomas White, February 7, 1917.
Printed for distribution and sessional papers.

5. Supplementary Estimates of sums required for the service of the Dominion for the year ending on the 31st March, 1918. Presented by Sir Thomas White, August 17, 1917.
Printed for distribution and sessional papers.

6. List of Shareholders in the Chartered Banks of the Dominion of Canada as on December 31, 1915. Presented by Sir Thomas White, January 25, 1917. *Not printed.*

7. Report on certified cheques, drafts or bills of exchange, dividends remaining unpaid and unclaimed balances in Chartered Banks of the Dominion of Canada, for five years and upwards prior to December 31, 1915. Presented by Sir Thomas White, January 25, 1917.. .. .. .

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10. Report of the Department of Trade and Commerce for the fiscal year ended 31st March, 1916: Part I.—Canadian Trade (Imports in and Exports from Canada). Presented by Sir George Foster, April 19, 1917.. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 5.

10*a*. Report of the Department of Trade and Commerce for the fiscal year ended March 31, 1916:—Part II.—Canadian Trade with France, Germany, the United Kingdom and the United States. Presented by Sir George Foster, January 25, 1917.
Printed for distribution and sessional papers.

10*b*. Report of the Department of Trade and Commerce for the fiscal year ended March 31, 1916.—Part III.—Canadian Trade with British and Foreign Countries (except France, Germany, United Kingdom and United States). Presented by Sir George Foster, April 19, 1917... .. ..*Printed for distribution and sessional papers.*

10*c*. Report of the Department of Trade and Commerce for the fiscal year ended March 31, 1916 (Part IV, Miscellaneous Information). Presented by Sir George Foster, June 4, 1917.. .. ..*Printed for distribution and sessional papers.*

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10*d*. Report of the Department of Trade and Commerce, Part V—Grain Statistics, compiled by the Inspection Branch of the Department, Ottawa, for the fiscal year ended March 31, 1916, the crop year ended August 31, 1916, and the season of navigation ended December 14, 1916; and Report of the Board of Grain Commissioners. Presented by Sir George Foster, June 8, 1917.. .. *Printed for distribution and sessional papers.*

10*e*. Report of the Department of Trade and Commerce, for the fiscal year ending March 31, 1916 (Part VI.—Subsidized Steamship Services, with Statistics showing Steamship Traffic to December 31, 1916, and Estimates for fiscal year 1917-1918). Presented by Sir George Foster, May 3, 1917... ..*Printed for distribution and sessional papers.*

10*f*. Report of the Department of Trade and Commerce for the fiscal year ended March 31, 1916: Part VII—Trade of Foreign Countries, Treaties and Conventions. Presented by Sir George Foster, 1917.. .. ..*Printed for distribution and sessional papers.*

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11. Report of the Department of Customs for the year ended March 31, 1916. Presented by Hon. Mr. Reid, January 29, 1917.. ..*Printed for distribution and sessional papers.*

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12, 13, 14. Reports, Returns and Statistics of the Inland Revenues of the Dominion of Canada, for the fiscal year ended March 31, 1916. Part I.—Excise. Part II.—Weights and Measures, Gas and Electricity. Part III.—Adulteration of Food. Presented by Sir James Lougheed, January 26, 1917...*Printed for distribution and sessional papers.*

15. Report of the Minister of Agriculture for the Dominion of Canada, for the year ended March 31, 1916. Presented by Hon. Mr. Burrell, January 26, 1917.
Printed for distribution and sessional papers.

15*a*. Report of the Dairy and Cold Storage Commissioner for the fiscal year ending March 31, 1916. (Dairying, Fruit, Extension of Markets and Cold Storage.) Presented by Hon. Mr. Burrell, 1917.. .. ..*Not printed.*

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15*b*. Report of the Veterinary Director General for the year ending March 31, 1916. Presented by Hon. Mr. Burrell, 1917... .. ..*Printed for distribution and sessional papers*

15*c*. Report on "The Agricultural Instruction Act," 1915-16, pursuant to Section 8, Chapter 5 of 3-4 George V. Presented by Hon. Mr. Patenaude, January 31, 1917.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 9.

(This volume is bound in two parts.)

16. Report of the Director and Officers of the Experimental Farms for the year ending 31st March, 1916.—Volumes I, II and III. Presented by Sir George Foster, August 13, 1917.
Printed for distribution and sessional papers.

17. Criminal Statistics for the year ended September, 1915. (Appendix to the Report of the Minister of Trade and Commerce for the year 1915.) Presented by Sir George Foster, 1917. .. ..*Printed for distribution and sessional papers*

18. Return of By-elections for the House of Commons of Canada held during the year 1916 Presented by Hon. Mr. Speaker, 1917.. .. ..*Not printed*

CONTENTS OF VOLUME 10.

19. Report of the Minister of Public Works on the works under his control for the fiscal year ended March 31, 1916. Presented by Hon. Mr. Rogers, January 26, 1917.
Printed for distribution and sessional papers

CONTENTS OF VOLUME 11.

20. Annual Report of the Department of Railways and Canals, for the fiscal year from April 1, 1915, to March 31, 1916. Presented by Hon. Mr. Cochrane, April 19, 1917
Printed for distribution and sessional papers

20*a*. Canal Statistics for the season of Navigation, 1916. Presented by Hon. Mr. Reid, May 7, 1917... .. ..*Printed for distribution and sessional papers*

20*b*. Railway Statistics of the Dominion of Canada for the year ended 30th June 1916. Presented by Hon. Mr. Cochrane, April 24, 1917
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 12.

20*c*. Eleventh Report of the Board of Railway Commissioners for Canada, for the year ending 31st March, 1916. Presented by Hon. Mr. Cochrane, January 22, 1917
Printed for distribution and sessional papers

20*d*. Telephone Statistics of the Dominion of Canada, for the year ended June 30, 1916. Presented by Hon. Mr. Cochrane, April 19, 1917
Printed for distribution and sessional papers

20*e*. Express Statistics of the Dominion of Canada, for the year ended June 30, 1916. Presented by Hon. Mr. Cochrane, April 25, 1917
Printed for distribution and sessional papers

20*f*. Telegraph Statistics of the Dominion of Canada, for the year ended June 30, 1916. Presented by Hon. Mr. Cochrane, April 19, 1917
Printed for distribution and sessional papers

20*g*. Report of the Royal Commission appointed to consider the general problem of transportation in Canada, comprising:—Report of Sir H. P. Drayton and Mr. W. M. Acworth; Report of Mr. A. H. Smith; and, Appendices A and B being Report of Appraisal of Canadian Northern Railway System and Grand Trunk Pacific Railway, by Mr. Jos. F. Swain, C.E. Presented by Sir Thomas White, May 3, 1917.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 13.

21. Forty-ninth Annual Report of the Department of Marine and Fisheries, for the year 1915-16—Marine. Presented by Hon. Mr. Hazen, January 23, 1917.
Printed for distribution and sessional papers.

22. List of Shipping issued by the Department of Marine and Fisheries, being a list of vessels on the Registry Books of the Dominion of Canada, on the 31st day of December, 1916. Presented by Hon. Mr. Hazen, September 4, 1917.
Printed for distribution and sessional papers.

23. Supplement to the Forty-ninth Annual Report of the Department of Marine and Fisheries for the fiscal year 1915-16. (Marine)—Steamboat Inspection Report. Presented by Hon. Mr. Hazen, April 19, 1917... ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 14.

24. Report of the Postmaster General for the year ended 31st March, 1916. Presented by Hon. Mr. Blondin, February 1, 1917...*Printed for distribution and sessional papers.*

25. Annual Report of the Department of the Interior, for the fiscal year ending March 31, 1916. Presented by Hon. Mr. Roche, January 22, 1917.
Printed for distribution and sessional papers.

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25*b*. Annual Report of the Topographical Surveys Branch of the Department of Interior, 1915-16. Presented by Hon. Mr. Roche, June 19, 1917.
Printed for distribution and sessional papers.

25*c*. Report of Hydrometric Surveys (Stream Measurements), for the calendar year 1915. Presented by Hon. Mr. Roche, April 19, 1917.
Printed for distribution and sessional papers.

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25*d*. Fifteenth Report of the Geographic Board of Canada for year ended March 31, 1916. Presented, 1917.. .. ..*Not printed.*

25*e*. Report of the British Columbia Hydrometric Survey for the calendar year 1915 (Water Resources Paper No. 18 of the Dominion Water Power Branch, Department of the Interior). Presented by Hon. Mr. Roche, July 5, 1917.
Printed for distribution and sessional papers.

25*f*. Progress Report of the Manitoba Hydrometric Survey for the calendar year 1915 (Water Resources Paper No. 19 of the Dominion Water Power Branch, Department of the Interior). Presented by Hon. Mr. Roche, July 7, 1917.
Printed for distribution and sessional papers.

CONTENTS OF VOLUME 17.

26. Summary Report of the operations of the Geological Survey, Department of Mines, for the calendar year, 1916. Presented by Hon. Mr. Meighen, August 28, 1917.
Printed for distribution and sessional papers.

26*a*. Summary Report of the Mines Branch of the Department of Mines, for the calendar year ending 31st December, 1915. Presented by Hon. Mr. Patenaude, April 19, 1917.
Printed for distribution and sessional papers.

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27. Report of the Department of Indian Affairs for the year ended March 31, 1916. Presented by Hon. Mr. Roche, January 22, 1917.
Printed for distribution and sessional papers.

28. Report of the Royal Northwest Mounted Police. 1916. Presented by Sir Robert Borden, April 19, 1917.. .. ..*Printed for distribution and sessional papers.*

CONTENTS OF VOLUME 19.

29. Report of the Secretary of State of Canada for the year ended March 31, 1916. Presented by Hon. Mr. Roche, August 18, 1917... ..*Printed for distribution and sessional papers.*

30. The Civil Service List of Canada for the year 1916. Presented 1917.
Printed for distribution and sessional papers.

31. Eighth Annual Report of the Civil Service Commission of Canada for the year ended August 31, 1916. Presented by Hon. Mr. Patenaude, April 19, 1917.
Printed for distribution and sessional papers

32. Annual Report of the Department of Public Printing and Stationery for the fiscal year ended March 31, 1916. Presented by Sir Robert Borden, July 31, 1917.
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33. Report of the Secretary of State for External Affairs for the year ended March 31, 1917. Presented 1917... .. ..*Printed for distribution and sessional papers*

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34. Report of the Minister of Justice as to the Penitentiaries of Canada for the fiscal year ending March 31, 1916. Presented 1917 ..*Printed for distribution and sessional papers*

35. Report of the Militia Council for the Dominion of Canada, for the fiscal year ending March 31, 1916. Presented by Sir A. E. Kemp, February 3, 1917
Printed for distribution and sessional papers.

36. Report of the Department of Labour for the fiscal year ending March 31, 1916. Presented by Hon. Mr. Crothers, January 22, 1917.
Printed for distribution and sessional papers

36a. Ninth Report of the Registrar of Boards of Conciliation and Investigation of the proceedings under "The Industrial Disputes Investigation Act, 1907," for the fiscal year ending March 31, 1916 Presented by Hon Mr Crothers January 22, 1917
Printed for distribution and sessional papers

37. Twelfth Annual Report of the Commissioners of the Transcontinental Railway for the year ended March 31, 1916. Presented by Hon Mr Cochrane, April 18, 1917
Printed for distribution and sessional papers

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38. Report of the Department of the Naval Service, for the fiscal year ending March 31, 1916. Presented by Hon. Mr. Hazen, January 22, 1917
Printed for distribution and sessional papers

38a. Supplement to the Sixth Annual Report of the Department of Naval Service, Fisheries Branch. Contributions to Canadian Biology, being studies from the biological stations of Canada, 1915-1916 Presented by Hon Mr Hazen, June 4, 1917
Printed for distribution and sessional papers

38c. Lobster Conservation in Canada, by A. P. Knight, M.A.
Printed for distribution and sessional papers

38b. Forty-ninth Annual Report of the Fisheries Branch of the Department of the Naval Service, 1915-16. Presented by Hon Mr Hazen January 22, 1917
Printed for distribution and sessional papers

CONTENTS OF VOLUME 21—*Continued.*

40. The Report of the Joint Librarians of Parliament. Presented by Hon. Mr. Speaker, January 19, 1917... .. ..*Not printed.*

41. Copies of Orders in Council, as follows:—

P.C. 1917, dated the 15th day of July, 1916, respecting the appointment of a Parliamentary Under Secretary of State for External Affairs during the continuance of the war.

P.C. 2576, dated the 21st day of October, 1916, respecting the appointment of Hugh Clark, Member of the House of Commons for the Electoral District of North Bruce, to the position of Parliamentary Under Secretary for Exernal Affairs, during the continuance of the present war.

P.C. 1720, dated the 15th day of July, 1916, respecting the appointment of a Parliamentary Secretary of the Department of Militia and Defence, during the continuance of the present war.

P.C. 1730, dated the 19th day of July, 1916, respecting the appointment of Fleming Blanchard McCurdy, Member of the House of Commons for the Electoral District of Shelburne and Queens, to the position of Parliamentary Secretary of the Department of Militia and Defence, during the continuance of the present war.

P.C. 2651, dated the 28th day of October, 1916, respecting the establishment of a ministry in London charged with the administration of the overseas forces of Canada, and the direction and control of the expenditures abroad in connection therewith.

P.C. 2656, dated the 31st day of October, 1916, respecting the appointment of Honourable Sir George Halsey Perley, to the position of Minister of Overseas Military Forces from Canada in the United Kingdom. Presented by Sir Robert Borden, January 18, 1917.. .. ..*Printed for sessional papers only.*

42. Papers relating to the Imperial War Conference, 1917. Presented by Sir Robert Borden, January 22, 1917.. .. ..*Printed for sessional papers only.*

42*a*. Copy of a Parliamentary Paper (Cd. 8566), containing extracts from the Minutes of the Proceedings of the Imperial War Conference, 1917, and Papers laid before the Conference. Presented by Sir Robert Borden, June 15, 1917.

Printed for distribution and sessional papers.

43. Copies of Orders in Council, as follows:—

P.C. 64-15-25, dated the 29th June, 1916, authorizing the superannuation of Mr. Silas Blair Kent, a clerk in Sub-division "B" of the First Division, employed as chief fishing bounty officer of the Naval Service Department.

P.C. 3192, dated 30th December, 1916, Regulations governing the payment of Separation Allowance in the Royal Canadian Navy and Royal Naval Canadian Volunteer Reserve.

P.C. 3108, dated 19th September, 1916, Regulations governing payment of "Command Money" to officers on "Special Service," etc., in the Royal Canadian Navy.

P.C. 2942, dated 29th November, 1916, Regulations governing payment of "Hard-lying Money" in the Royal Canadian Navy.

P.C. 2442, dated 11th October, 1916, Amendment to Order in Council P.C. 1334, dated 3rd June, 1916, establishing Rates of Pensions for the Military and Naval Forces of Canada.

P.C. 2130, dated 9th September, 1916, Regulations for enrolment of men in the Royal Canadian Volunteer Reserve for service in the Royal Navy.

P.C. 1939, dated 18th August, 1916, Order made under War Measures Act, 1914, to reduce risk of persons of enemy nationality landing in Canada under guise of neutrals. Presented by Hon. Mr. Hazen, January 22, 1917... .. ..*Not printed.*

43*a*. Copy of extract from Order in Council No. P.C. 942, dated 5th April, 1917, with reference to Regulations governing the Payment of Separation Allowance in the Royal Canadian Navy. Presented by Hon. Mr. Hazen, June 11, 1917.. .. ..*Not printed.*

43*b*. Copy of extract from Order in Council No. P.C. 1397, dated 21st May, 1917: Rules and Regulations to apply to persons who are employed in or who are in or in the vicinity of any store, wharf, etc., in or upon which any ammunition, etc., is handled. Presented by Hon. Mr. Hazen, June 11, 1917... .. ..*Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

43*c*. Copy of Extract from Order in Council No. P.C. 1576, dated 11th June, 1917: Regulations instituting the rank of Chief Skipper and Skipper in the Royal Canadian Navy. Presented by Hon. Mr. Hazen, June 20, 1917.. .. ..*Not printed.*

43*d*. Copy of Order in Council, P.C. 69/1774, dated 28th June, 1917, containing Regulations for the Payment of Specialist Allowance to R.N.C.V.R. and R.N.C.V.R. Overseas Division. Presented by Hon. Mr. Hazen, July 9, 1917.. .. ..*Not printed.*

43*e*. Copy Extract from Order in Council, P.C. No. 1783, dated 29th June, 1917:—Rules and Regulations governing the issue of Pay, Allowances and Pensions, Department of the Naval Service—Copy Extract from Order in Council, P.C. No. 1871, dated 6th July, 1917;—Amendment to the Regulations for the payment of Separation Allowance to the dependents of those on Active Service under the Naval Service Department. Presented by Sir James Lougheed, July 12, 1917. (Senate)... .. ..*Not printed.*

43*f*. Extract from Order in Council, P.C. 1993 of the 17th July, 1917: Scale of Subsistence Allowances to Officers and men of the Naval Service when travelling on duty.—And also,—Extract from Order in Council, P.C. 1994 of the 17th July, 1917: Scale of Allowances in lieu of lodging, provisions, fuel and light, for Officers and men of the Naval Service. Presented by Hon. Mr. Hazen, August 6, 1917.. .. ..*Not printed.*

43*g*. Extract from Order in Council, P.C. 2105, dated 9th August, 1917: Amendments to regulations for the issue of pay, allowances and pensions to officers, warrant officers and men invalided, etc., from the Naval Service. Presented by Hon. Mr. Hazen August 27, 1917... .. ..*Not printed.*

43*h*. Extract from Order in Council ("Defence of Canada Order"), P.C. No. 2277, dated the 17th August, 1917:—Amendments respecting Naval Service. The Senate..*Not printed.*

43*i*. Extract from Order in Council, No. P.C. 2433, dated 1st September, 1917:—Regulations *re* Pay and Allowances to Officers and Men after discharge from the Canadian Naval Service. The Senate.. .. ..*Not printed*

44. Correspondence relating to the withdrawal of the Ross Rifle from the Canadian Army Corps. Presented by Sir Robert Borden, January 22, 1917.
Printed for sessional papers only

45. Report of the War Purchasing Commission, covering period from its appointment on May 8, 1915, to December 31, 1916. Presented by Hon. Mr. Kemp, January 23, 1917.
Not printed

46. Copies of Orders in Council respecting the establishment of a National Service Board of Canada, and appointments thereto, under the provisions of the War Measures Act, 1914. Presented by Sir Robert Borden, January 23, 1917.
Printed for sessional papers only

47. Copy of Agreement between His Majesty the King and The Vale Coal Company, Ltd., concerning the lease of the Vale Railway. Presented by Hon. Mr. Cochrane, January 23, 1917... .. ..

CONTENTS OF VOLUME 21—*Continued.*

48*b*. Return to an Order of the House, of the 14th May, 1917, for a copy of the judgment delivered by Mr. Justice Cassels on the 24th day of January, 1917, in the matter of fixing the price to be paid by the Government for the Quebec, Montmorency and Charlevoix Railway, the Quebec and Saguenay Railway, and the Lotbinière and Megantic Railway, under the statute of last session, Chapter 22, 6-7 George V. Presented June 27, 1917. Mr. Graham.. .. ..*Not printed.*

49. Statement of Governor General's Warrants issued since the last Session of Parliament on account of 1916-17. Presented by Sir Thomas White, January 25, 1917.
Not printed.

49*a*. Statement of Governor General's Warrants issued since the adjournment of Parliament on February 7, 1917. Presented by Sir Thomas White, April 24, 1917..*Not Printed.*

50. Copy of Amendments to the Radiotelegraph Regulations since the 1st August, 1914. Presented by Hon. Mr. Hazen, January 25, 1917... .. ..*Not printed.*

50*a*. Copy of Amendment to subsection (*d*) of section 104 of the Radiotelegraph Regulations; Operation of ship stations within a Canadian harbour. Presented by Hon. Mr. Hazen, January 29, 1917.. .. .. *Not printed.*

50*b*. Copy of Amendment to Radiotelegraph Regulations issued by the Minister of the Naval Service, under Section 11, Chapter 43, of the Radiotelegraph Act, 3-4 George V. Presented by Hon. Mr. Hazen, April 19, 1917.. .. ..*Not printed.*

51. Statement of Expenditure on account of "Miscellaneous Unforeseen Expenses," from the 1st April, 1916, to the 18th January, 1917, in accordance with the Appropriation Act of 1916. Presented by Sir Thomas White, January 25, 1917... .. ..*Not printed.*

52. Statement of Temporary Loans issued since April 1, 1916, to 18th January, 1917. Presented by Sir Thomas White, January 25, 1917... .. ..*Not printed.*

53. Report and Statement of Receipts and Expenditures of the Ottawa Improvement Commission to March 31, 1916. Presented by Sir Thomas White, January 25, 1917.
Not printed.

54. Statement of the Receipts and Expenditures of the Royal Society of Canada, for the year ended April 30, 1916. Presented by Sir Thomas White, January 25, 1917...*Not printed.*

55. Statement of Receipts and Expenditures of the National Battlefields Commission to 31st March, 1916. Presented by Sir Thomas White, January 25, 1917.. ..*Not printed.*

56. Statement of Superannuation and Retiring Allowances in the Civil Service during the year ending 31st December, 1916, showing name, rank, salary, service allowance and cause of retirement of each person superannuated or retired, also whether vacancy has been filled by promotion, or by appointment, and the salary of any new appointee. Presented by Sir Thomas White, January 25, 1917... .. ..*Not printed.*

57. Statement in pursuance of Section 17 of the Civil Service Insurance Act, for the year ending March 31, 1916. Presented by Sir Thomas White, January 25, 1917.
Not printed.

58. Regulations under "The Destructive Insect and Pest Act," pursuant to Section 9, Chapter 31 of 9-10 Edward VII. Presented by Hon. Mr. Burrell, January 26, 1917.
Not printed.

59. Account of the average number of men employed on the Dominion Police Force during each month of the year 1916, and of their pay and travelling expenses, pursuant to Chapter 92, Section 6, Subsection 2, of the Revised Statutes of Canada. Presented by Hon. Mr. Doherty, January 26, 1917... .. ..*Not printed.*

60. Copy of the evidence taken before the Hon. Sir Charles Davidson, Kt., Commissioner appointed to inquire into the purchase by and on behalf of the Government of the Dominion of Canada, of Arms, Munitions, Implements, Materials, Horses, Supplies, and other things for the purpose of the present war, and as to the expenditures and payments made or agreed to be made therefor; together with the Report of the said Commissioner concerning the sale of Small Arms Ammunition; purchase of Submarines, and Military Cloth (Auburn Woollen Mills Co.). Presented by Hon. Mr Meighen, January 30, 1917.. .. ..*Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

61. Report submitted by the officer in charge of the Canadian Records Office, London, Eng., to The Right Honourable Sir Robert Borden, G.C.M.G., M.P., Prime Minister of Canada, on the work of the Canadian War Records Office since the date of its foundation to the 11th January, 1917. Presented by Sir Robert Borden, January 31, 1917.
Not printed.

62. Annual Return respecting Trade Unions under Chapter 125, R.S.C., 1906. Presented by Hon. Mr. Paterson, January 31, 1917.. .. ..*Not printed.*

63. A detailed statement of all bonds or securities registered in the Department of the Secretary of State of Canada, since last return (22nd January, 1916) submitted to the Parliament of Canada under Section 32 of Chapter 19, of the Revised Statutes of Canada, 1906. Presented by Hon. Mr. Blondin, January 31, 1917... ..*Not printed.*

64. Return of Orders in Council which have been published in the *Canada Gazette*, between the 1st January, 1916, and the 31st December, 1916, in accordance with the provisions of Section 5 of "The Dominion Lands Survey Act," Chapter 21, 7-8 Edward VII Presented by Hon. Mr. Roche, February 1, 1917.. .. ..*Not printed.*

65. Return of Orders in Council which have been published in the *Canada Gazette*, between 1st January, 1916, and the 31st December, 1916, in accordance with the provisions of "The Forest Reserves and Park Act," Section 19, of Chapter 16, 1-2 George V. Presented by Hon. Mr. Roche, February 1, 1917.. .. ..*Not printed.*

66. Return of Orders in Council which have been published in the *Canada Gazette*, between the 1st January, 1916, and the 31st December, 1916, in accordance with the provisions of Chapter 47, 2 George V, entitled "The Railway Belt Water Act." Presented by Hon. Mr. Roche, February 1, 1917... .. ..*Not printed*

67. Return of Orders in Council which have been published in the *Canada Gazette* and in the British Columbia *Gazette*, between 1st January, 1916, and the 31st December, 1916, in accordance with provisions of Subsection (*d*) of Section 38 of the regulations for the survey, administration, disposal and management of Dominion Lands within the 40-mile Railway Belt in the Province of British Columbia Presented by Hon. Mr Roche, February 1, 1917.. .. ..*Not printed.*

68. Return showing all lands sold by the Canadian Pacific Railway Company during the year, from the 1st October, 1915, to 30th September, 1916, together with the names of the purchasers, in accordance with the Statutes of Canada, 1886, Chapter 9, Section 8 Presented by Hon. Mr. Roche, February 1, 1917.. .. ..*Not printed.*

69. Return of Orders in Council which have been published in the *Canada Gazette*, between 1st January, 1916, and the 31st December, 1916, in accordance with the provisions of Section 77 of "The Dominion Lands Act," Chapter 20, 7-8 Edward VII Presented by Hon. Mr. Roche, February 1, 1917.. .. ..*Not printed.*

70. Certified copies of Reports of the Committee of the Privy Council, approved by His Excellency the Governor General on the 29th November, 1916, giving authority for the cancellation on and from the 1st January, 1917, of the agreements between the Government of Canada and the Governments of Manitoba, Saskatchewan and Alberta, respectively, respecting the services of the Royal North West Mounted Police in these provinces Presented by Sir Robert Borden, February 1, 1917
Printed for sessional papers only.

70a. Return to an Address to His Excellency the Governor General, of the 31st January, 1916, for a copy of all documents, letters, messages correspondence, etc., respecting the termination of the agreements between the Government of Canada and the Governments of the Provinces of Saskatchewan and Alberta in reference to the Royal North West Mounted Police. Presented June 1, 1917. Mr. McCraney ..*Not printed.*

71. Return to an Order of the House, of the 20th March, 1916, for a copy of all telegrams, letters and correspondence concerning the appointment of Mr. Alfred Gravel, Harbour Commissioner of Quebec, and concerning all other candidates for the position of Commissioner on the Harbour Board of Quebec, to represent the Trade Share. Presented February 2, 1917. Mr. Bourassa. .. ..*Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

72. Return to an Address to His Royal Highness the Governor General, of the 2nd February, 1914, for a copy of all Orders in Council, correspondence, petitions, telegrams and other papers or documents bearing date between the years 1885 and 1914 in any way relating to the prohibition of the export of Sockeye Salmon from the Province of British Columbia. Presented February 2, 1917.—*Mr. Sinclair*.. .. ..*Not printed.*

73. Seventh Annual Report of the Commission of Conservation for the fiscal year ending March 31, 1916. Presented by Hon. Mr. Hazen, February 5, 1917.. .. ..*Not printed.*

74. Copy of correspondence between Sir Robert Borden and Sir Wilfrid Laurier respecting proposals for the extension of the term of Parliament, November 3, 1915, to January 3, 1917. Presented by Sir Robert Borden, May 23, 1917.

Printed for sessional papers only.

75. Detailed Statement of Customs Duties and the Refund thereof, under Section 92, Consolidated Revenue Act, for the year ended March 31, 1916. (Senate)... ..*Not printed.*

75*a*. Detailed Statement of all Remissions and Refunds of the Tolls or duties for the fiscal year ending March 31, 1916.—Also,—Supplementary statement of the Remissions and Refunds of Tolls and Duties from the Department of Marine and Fisheries. Presented by Hon. Mr. Patenaude, April 19, 1917.. .. .. *Not printed.*

76. Ordinances of the Yukon Territory, passed by the Yukon Council in 1916. (Senate).

Not printed.

76*a*. Return of Orders in Council passed under the provisions of Section 18, of Chapter 63, Revised Statutes of Canada, "An Act to provide for the Government of the Yukon Territory." Presented by Hon. Mr. Patenaude, April 19, 1917.. .. ..*Not printed.*

76*b* Return of Orders in Council passed in the year 1917, under the provisions of Section 18, of Chapter 63, Revised Statutes of Canada, "An Act to provide for the Government of the Yukon Territory." Presented by Hon. Mr. Sevigny, July 5, 1917.

Not printed.

77. Copy of extract from Order in Council No. P.C. 43/263, dated 27th January, 1917, authorizing Regulations governing the payment of Allowance for the Accountant Officers in the Royal Canadian Navy of Receiving Ships and Depot Ships, in accordance with the provisions of Secton 47, Chapter 43, 9-10 Edward VII. Presented by Hon. Mr. Hazen, February 6, 1917.. .. ..*Not printed.*

78. Return to an Order of the House of the 31st January, 1917, for a copy of all correspondence respecting the appointment of a Commission to investigate the financial and economic condition of Canadian railways, showing the names of the Commissioners, the rate of their remuneration, along with the names of the secretaries and engineers appointed by them, or by the Commission, and the rate of their remuneration. Presented February 6, 1917.—*Sir Wilfrid Laurier*.. .. ..*Not printed.*

79. Return to an Order of the House of the 31st January, 1917, for a copy of all papers, letters, telegrams and other documents relative to the removal of Mr. H. D. McKenzie as mechanical foreman at Stellarton on the Canadian Government Railways, and the appointment of his successor. Presented February 6, 1917.—*Mr. Macdonald.*

Not printed.

80. Return to an Order of the House of the 31st January, 1917, for a return showing the quantity of freight carried over the Grand Trunk Pacific Railway between Lévis and Moncton since that portion of said railway has been operated by the Canadian Government Railways System. Presented February 6, 1917.—*Mr. Copp*.. .. ..*Not printed.*

81. Return to an Order of the House of the 12th April, 1916, for a Return showing:—1. How many clerks there are in the Interior Department who belong to and are paid from the outside service vote and who work in the inside service? 2. The names of said clerks? 3. Salary paid to each? 4. How long each has been in the service of the Department? 5. If all or any of these clerks have passed any examination. If so, what examination and on what date or dates? Presented February 6, 1917.—*Mr. Turriff*.. ..*Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

82. Return to an Order of the House of the 15th March, 1916, for a copy of all correspondence between the Government and the Provinces, regarding increased co-operation in the promotion of immigration and land settlement, commencing with a letter of the Minister of the Interior to the Provincial Prime Ministers, in November, 1911. Presented February 6, 1917.—*Sir Wilfrid Laurier*... .. ..*Not printed.*

83. Return to an Order of the House of the 27th March, 1916, for a Return showing:—1. The names and salaries of the persons employed in the Immigration Service in the City of Montreal; their respective salaries when appointed and what they receive at the present time? 2. Which of such employees are given travelling or other expenses, and how much has been been paid to each on that account since their respective appointments. Presented February 6, 1917.—*Mr. Lachance*.. .. ..*Not printed.*

84. Return to an Order of the House of the 31st January, 1917, for a return showing the quantities of timber cut, and the sum paid therefor, to date, under the lease or sale of timber made by the Indian Department to Mr. Arthur Webber from lands situated near Ship Harbour Lake, Halifax County, together with the name or names of all surveyors of the timber cut from the said Indian lands under the above-mentioned sale or lease, and copies of all reports made in connection therewith by said surveyors. Presented February 6, 1917.—*Mr. McLean (Halifax)*... .. ..*Not printed.*

85. A copy of the Special Report made by the Royal Commission on Indian Affairs on the Kitsilano Indian Reserve, together with the Order in Council passed on the 28th March, 1916, and all other papers and correspondence relating to the Report. (Senate) *Not printed.*

86. Return to an Address to His Excellency the Governor General, of the 31st January, 1917, for a copy of all correspondence exchanged between the Dominion Government and the Provincial Governments inviting them to a conference on the subject of making provisions for returned soldiers, including a copy of the proceedings of the conference which took place on the 10th of January at Ottawa on the same subject. Presented February 7, 1917.—*Sir Wilfrid Laurier* .. ..*Printed for sessional papers only.*

87. Return to an Order of the House, of the 31st January, 1917, for a copy of all correspondence between any Member of the Government and Sir Thomas Tait referring to his appointment to, and resignation from, the National Service Board. Presented February 7, 1917.—*Mr. Graham*.. .. ..*Printed for sessional papers only.*

87a. Return to an Order of the House of the 31st January, 1917, for a copy of all correspondence between Mr. Murray, Secretary of the Manufacturers' Association, and any Member of the Government, or Sir Thomas Tait, as head of the National Service Board, concerning his suggested appointment as Secretary of the National Service Board. Presented June 1, 1917.—*Mr. Graham*.. .. ..*Not printed.*

88. Correspondence between the Prime Minister and the Leader of the Opposition concerning the formation of a Parliamentary National Service Commission. Presented by Sir Robert Borden, February 7, 1917 .. ..*Printed for sessional papers only.*

89. Return to an Order of the House, of the 5th February, 1917, for a copy of all petitions, letters, telegrams, reports and other documents relative to the closing of the Canard and Splitlog Post Office and the opening of Loiselleville Post Office, in the County of Essex, together with a copy of all petitions and documents relative to the establishment of rural mail routes from the Loiselleville Post Office. Presented February 7, 1917.—*Mr. Wilcox*.. .. .. *Not printed.*

90. Report on the Canadian Army Medical Service, by Colonel Herbert A. Bruce, Special Inspector General, Medical Services, Canadian Expeditionary Force, dated at London, England, 20th September, 1916. Presented by Sir Robert Borden, February 7, 1917. *Not printed.*

90a. Report on the Canadian Army Medical Service, by a Board of Officers presided over by Surgeon-General Sir William Babtie, K.C.M.G., C.B., V.C., dated at London, England, December 22, 1916. Presented by Sir Robert Borden, February 7, 1917. *Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

90*b*. Copy of Interim Report of the Surgeon-General G. C. Jones, Director Medical Services. Canadians, in reply to the Report on the Canadian Army Medical Service by Colonel Herbert A. Bruce, Special Inspector-General, Medical Services, Canadian Expeditionary Force, dated London, September 28, 1916. Presented by Sir Edward Kemp, May 31, 1917.. .. ..*Not printed.*

91. Return to an Order of the House, of the 7th February, 1917, for a copy of all letters, telegrams, papers and other documents relative to the closing of the Marine Agency at Pictou last autumn, and as to the re-opening of said agency. Presented April 19, 1917. —*Mr. Macdonald*.. .. ..*Not printed.*

92. Return to an Order of the House of the 5th February, 1917, for a Return showing:—1. The number of horses that have been bought in Canada for war purposes in each of the years 1914, 1915 and 1916, resepctively, (*a*) for the Canadian Army; (*b*) for Britain; and (*c*) for France and our other Allies. 2. The amount paid for the horses in each of the years for the different countries mentioned. Presented April 19, 1917.—*Mr. Edwards*.. .. ..*Not printed.*

93. Return to an Order of the House of the 31st January, 1917, for a Return showing:—1. The names, home addresses and former occupations of all censors, decoders or other employees of the Government in the different cable stations in Nova Scotia during the calendar year 1916. 2. The name of the person who recommended each of the said censors, decoders or employees. 3. What salary was paid to each of said persons for the calendar year 1916. Presented April 19, 1917.—*Mr. Sinclair*.. ..*Not printed.*

94. Copies of General Orders promulgated to the Militia for the period between December 30, 1915, and February 8, 1917. Presented by Sir Edward Kemp, April 19, 1917.
Not printed.

95. Return to an Order of the House of the 11th March, 1915, for a copy of all charges, correspondence, letters, telegrams and other documents relative to the dismissal of Frank Dunlop, of Graves Point, at Sydney Mines, in the riding of North Cape Breton and Victoria, N.S., and the expenses of such investigation in detail. Presented April 19, 1917.—*Mr. McKenzie*.. .. ..*Not printed.*

96. Return to an Order of the House of the 3rd April, 1916, for a Return showing:—1. The names of the staff in the office of the High Commissioner for Canada in London? 2. Whether any of these officials are natives of Canada. If so which ones? 3. Whether it is true, as alleged, that Canada is the only British Dominion which employs none of its natives in its High Commissioner's Office. Presented April 19, 1917.—*Mr. Proulx*.
Not printed.

97. Return to an Address to His Royal Highness the Governor General, of the 22nd February, 1915, for a copy of all Orders in Council, memoranda, correspondence or other documents in the possession of the Government, or any Department thereof, relating to the trade in dried fish and wines between Portugal and Canada. Presented April 19, 1917.—*Mr. Sinclair*.. .. ..*Not printed.*

98. Return to an Order of the House of the 31st January, 1917, for a tabulated statement showing the number of divorces granted by the Parliament of Canada since 1867. Presented April 19, 1917.—*Mr. Lemieux*.. .. ..*Not printed.*

99. Return to an Order of the House of the 3rd February, 1916, for a copy of all letters, telegrams and other documents, including tenders, relating to the mail contract from Tatamagouche to New Annan and Tatamagouche Mountain, in the County of Colchester. Presented April 19, 1917.—*Mr. Macdonald*.. .. ..*Not printed.*

100. Copy of new Rule in substitution of Rule 236 of the General Rules and Orders now in force regulating the practice and procedure in the Exchequer Court of Canada, made on the 16th day of February, 1917. Presented by Hon. Mr. Patenaude, April 19, 1917.
Not printed.

CONTENTS OF VOLUME 21—*Continued.*

100a. Copy of Rule 200 of the General Rules and Orders now in force regulating the practice and procedure in the Exchequer Court of Canada; also, Copy of General Order respecting fees and costs in the Exchequer Court in the exercise of its jurisdicton as a Court of Admiralty. Presented by Hon. Mr. Patenaude, May 3, 1917.....*Not printed.*

101. Return to an Order of the House of the 5th February, 1917, for a return showing a list of all persons employed during the year 1916 in the round-house of the Canadian Government Railways at Pirate Harbour, N.S., as brakemen, telegraphers, cleaners and labourers, showing the dates of their appointments and length of time employed respectively, and also the monthly rate of wages paid to each of said employees. Presented April 19, 1917.—*Mr. Sinclair*.. .. .. .

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Forces or the Militia Forces of Canada since the present war was declared. 2. Whether these Members or any of them were, or are in receipt of pay from the Militia Department and in receipt of their indemnity as Members at the same time. 3. Whether the wives of these Members, or any of them were, or are in receipt of separation allowance. Presented April 20, 1917.—*Mr. Hughes (Kings, P.E.I.)*.. .. ..*Not printed.*

109*a*. Supplementary return to an Order of the House of the 19th April, 1917, for a return showing:—1. The names of the Members of Parliament who now belong, or who did belong to the Overseas Forces or the Militia Forces of Canada since the present war was declared. 2. Whether these Members, or any of them were, or are in receipt of pay from the Militia Department and in receipt of their indemnity as Members at the same time. 3. Whether the wives of these Members, or any of them were, or are in receipt of separation allowance. Presented April 24, 1917.—*Mr. Hughes (Kings, P.E.I.)*.. ..*Not printed.*

109*b*. Return to an Order of the House of the 25th April, 1917, for a return showing:—1. How many Members of the House of Commons are serving or have served in the Canadian Army. 2. The names of each of said Members, the date of appointment, and rank. 3. The names of those Members who have resigned or have withdrawn from military service and the date of withdrawal or resignation. 4. How much has been paid to each for military salary, expenses and separation allowance to wife or relatives, respectively. Presented May 31, 1917.—*Mr. Turriff*.. .. ..*Not printed*

109*c*. Corrected copy of a return to an Order of the House of the 25th April, 1917, for a return showing:—1. How many Members of the House of Commons are serving or have served in the Canadian Army. 2. The names of each of said Members, the date of appointment, and rank. 3. The names of those Members who have resigned or have withdrawn from military service and the date of withdrawal or resignation. 4. How much has been paid to each for military service, expenses and separation allowance to wife or relatives, respectively. Presented June 14, 1917.—*Mr. Turriff*.. .. ..*Not printed.*

110. Return to an Order of the House of the 19th April, 1917, for a return showing:—1. What amounts have been given to the Canadian Patriotic Fund to December 31, 1916, and what amounts have been promised for 1917, by the different counties, towns and cities in each of the different provinces. 2. The names of the different counties, towns and cities, and the respective amounts subscribed and promised by each. 3. What counties, cities and towns in each province, if any, have not contributed any amount to the said fund up to the present time. Presented April 24, 1917.—*Mr. Edwards*.. ..*Not printed.*

110*a*. Return to an Order of the House of the 19th April, 1917, for a return showing:—1. How much money has been subscribed and voted to the Canadian Patriotic Fund by each of the different provinces to December 31, 1916. 2. How much money has been paid to the Canadian Patriotic Fund by each of the different provinces during the same time. 3. How much money has been promised by county, township, city or other grants by each province for the year 1917. 4. How many persons in each province have received assistance from the Canadian Patriotic Fund to December 31, 1916. 5. The total amount so expended in each province. Presented April 24, 1917.—*Mr. Edwards*.. ..*Not printed.*

111. Copy of Order in Council P.C. 802, dated 23rd March, 1917, in respect to taking over of the Ross Rifle Factory by the Government of Canada. Presented by Sir Edward Kemp, April 24, 1917.. .. ..*Not printed.*

112. Return to an Order of the House of the 31st January, 1917, for a copy of all documents, letters, telegrams and other correspondence in the Department of the Interior, relating to grazing leases numbers 2785, 2803, 2843, 3701, 3998, 4603, 5566, 6220 and 6221. Presented April 25, 1917.—*Mr. Steele*.. .. ..*Not printed*

113. Memorandum from the Superintendent of Immigration respecting the advertising by the Canadian Government in United States newspapers for farm hands to work in Canada; together with a copy of the advertisements and instructions concerning the same. Presented by Hon. Mr. Roche, April 25, 1917.. .. ..*Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

114. Copies of Orders in Council:—

P.C. 341, dated the 7th day of February, 1917, respecting the exportation of newsprint paper in sheets or rolls by license only under regulations by the Minister of Customs.

P.C. 445, dated the 17th day of February, 1917, containing orders and regulations respecting the price, sale, control, distribution, transport, etc., of newsprint paper in sheets or rolls.

P.C. 1059, dated the 16th day of April, 1917, empowering the Minister of Customs to fix the quantity and price of newsprint paper furnished or to be furnished to the publishers in Canada by the manufacturers; and controlling the distribution and delivery of the same.

P.C. 1060, dated the 16th day of April, appointing R. A. Pringle a commissioner to conduct an inquiry into and concerning the manufacture, sale, price and supply of newsprint paper within the Dominion of Canada. Presented by Sir Thomas White, April 26, 1917.. .. .. .

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and all other persons, concerning either the construction or repairing or purchase of the wharves at the following places: Ile Perrot Sud, the Church in the Village of Ile Perrot, the Village of Vaudreuil, Pointe Cavagnal, Hudson, Rigaud, Graham, Pointe Fortune, and Ile Perrot Nord. Also, a copy of all specifications and reports already brought down at my request in relation to the documents prior to and since 1904, and a statement of the amounts that have been paid for such construction or repairs, and to whom they were paid. Presented April 30, 1917.—*Mr. Boyer*.. .. ..*Not printed.*

122*a*. Return to an Order of the House of the 16th February, 1916, for a copy of all letters, petitions, correspondence, telegrams and reports, exchanged between the Government, the engineers residing in the district, and all other persons, concerning the construction and repairing done to the wharves mentioned below, since 1904, and of all data and reports already produced at my request and relating to documents prior to 1904; also the amounts of money paid for such construction and repairing, and to whom paid:—The wharf at Ile Perrot North, South, and at the Church; of the Village of Vaudreuil; of Pointe Cavagnal; of Hudson; of Graham; of Rigaud, and of Pointe Fortune. Presented April 30, 1917.—*Mr. Boyer*.. .. ..*Not printed.*

122*b*. Return to an Order of the House of the 30th April, 1917, for a copy of all letters, petitions, correspondence, telegrams and reports exchanged between the Government, the resident engineer and all other persons, concerning the construction and repairing done to the wharves at Ile Perrot North, South and at the Church; Village of Vaudreuil, Pointe Cavagnal, Hudson, Graham, Rigaud and Point Fortune since 1904. Also, a copy of all data and reports regarding above already produced at my request relating to documents prior to 1904, showing the amounts of money paid for such construction and repairing, and to whom paid. And also, return to an Order of the House of the 30th April, 1917, for a copy of all letters, petitions, correspondence and telegrams exchanged between the Government, the district engineer, and any other persons concerning either the construction, repairing or purchase of the wharves at Ile Perrot South, the Church in the Village of Ile Perrot, Village of Vaudreuil, Pointe Cavagnal, Hudson, Rigaud, Graham, Pointe Fortune and Ile Perrot North, since 1904. Also a copy of all specifications and reports already brought down at my request in relation to above prior to, and since 1904, giving a statement of the amounts that have been paid for such construction or repairs, showing to whom they were paid. Presented August 13, 1917.—*Mr. Boyer.*

Not printed.

123. Return to an Order of the House of the 19th April, 1916, for a copy of all letters, petitions, correspondence and telegrams exchanged between the Government, its resident engineer, and all other persons, concerning the dredging work done at the following places:—Ste. Anne de Bellevue, Pointe Fortune, Ottawa River Channel between Ile au Foin and Ile à Paquin, Graham channel, Rigaud channel, Hudson Heights channel, Hudson, Como, Pointe Cavagnal, channel at Vaudreuil Village, Dorion Bay channel, Ile Perrot Church, Ile Perrot Sud Wharf, and Ile Perrot Nord Wharf. Also, a statement of the amounts paid to different persons, companies, etc., for such work, the dates, etc., and a copy of the estimates already brought down at my request, the whole since 1904. Presented April 30, 1917.—*Mr. Boyer*.. .. ..*Not printed.*

123*a*. Return to an Order of the House of the 16th February, 1916, for a copy of all letters, petitions, correspondence, telegrams and reports exchanged between the Government, the resident engineer of the district, and all other persons, concerning the dredging work done at the places below named, and the amount of money paid to divers, persons companies, etc., for such work, as well as the statements already presented at any request, the whole since 1904:—At the wharf of Ile Perrot, North, South and at the Church; in Dorion Bay channel; at Vaudreuil Village channel; at Pointe Cavagnal; at Como; at Hudson; at Hudson Heights channel; at Graham channel; in the Rigaud River channel; in the Ottawa river; Ile aux Poires channel; at Pointe Fortune, and at Ste-Anne de Bellevue channel. Presented April 30, 1917.—*Mr. Boyer*.. .. ..*Not printed.*

124. Return to an Order of the House of the 3rd May, 1916, for a copy of all letters, telegrams, bills, vouchers and memoranda in connection with the repairs to the wharf at Upper Prospect, Halifax County, N.S., in 1915. Presented April 30, 1917.—*Mr. McLean (Halifax)*.. .. ..*Not printed.*

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125. Return to an Order of the House of the 3rd May, 1916, for a copy of all letters, telegrams, bills, vouchers and memoranda in connection with the repairs to the wharf at Shad Bay, Halifax County, N.S., in 1915. Presented April 30, 1917.—*Mr. McLean (Halifax)*.. .. .. .

CONTENTS OF VOLUME 21—*Continued.*

136. Return to an Order of the House of the 23rd April, 1917, for a return showing:—1. The names, former post office addresses, occupations and salaries paid to the censors and decoders in the employ of the Government at Hazel Hill and Canso during the year 1916. 2. How much has been expended in connection with this service at Canso and Hazel Hill since the first of August, 1914, up to the present date. 3. How much has been expended in connection with the said service in embracing all the stations in the province of Nova Scotia from August 1, 1914, up to the present date. Presented May 2, 1917.—*Mr. Sinclair*.. .. ..*Not printed.*

137. Return to an Order of the House of the 23rd April, 1917, for a copy of all contracts and agreements between Sir Charles Ross, his successors or assigns, and His Majesty the King, represented by the Minister of Militia and Defence, since and including the agreement between them dated the 27th day of March, A.D., 1902. Presented May 2, 1917. *Mr. Northrup*.. .. ..*Printed for Sessional Papers only.*

138. Return to an Order of the House of the 23rd April, 1917, for a return showing:—1. How many permanent civil servants or officials were in the employ of the Department of Militia and Defence on the 10th day of October, 1911, and how many on the 31st of March, 1917. 2. How many temporary civil servants and employees of all kinds were in the employ of the said Department on the 10th day of October, 1911, and how many on the 31st of March, 1917. 3. How many permanent civil servants or officials were appointed by said Department since the 1st of August, 1914. 4. How many temporary civil servants and employees were employed by said Department since August 1, 1914. 5. What was the gross amount paid by said Department for salaries and expenses to both permanent and temporary civil servants and employees for the fiscal year ending March 31, 1914. 6. What was the gross amount paid by said Department for salaries and expenses of all permanent and temporary civil servants and employees for the fiscal year ending March 31, 1917. 7. How many civil servants were appointed by said Department since October 10, 1911, under the provisions of Section 21 of the Civil Service Act. Presented May 2, 1917.—*Mr. Macdonald*.. .. ..*Not printed.*

138*a*. Return to an Order of the House of the 2nd May, 1917, for a return showing:—1. How many permanent civil servants or officials were in the employ of the Department of Naval Affairs on the 10th day of October, 1911, and how many on the 31st of March, 1917. 2. How many temporary civil servants and employees of all kinds were in the employ of the said Department on the 10th day of October, 1911, and how many on the 31st of March, 1917. 3. How many permanent civil servants or officials were appointed by said Department since the 1st of August, 1914. 4. How many temporary civil servants and employees were employed by said Department since August 1, 1914. 5. What was the gross amount paid by said Department for salaries and expenses to both permanent and temporary civil servants and employees for the fiscal year ending March 31, 1911. 6. What was the gross amount paid by said Department for salaries and expenses of all permanent and temporary civil servants and employees for the fiscal year ending March 31, 1917. 7. How many civil servants were appointed by said Department since October 10, 1911, under the provisions of Section 21 of the Civil Service Act. Presented May 16, 1917.—*Mr. Chisholm*.. .. ..*Not printed.*

138*b*. Return to an Order of the House of the 2nd May, 1917, for a return showing:—1. How many permanent civil servants or officials were in the employ of the Department of Marine and Fisheries on the 10th day of October, 1911, and how many on the 31st day of March, 1917. 2. How many temporary civil servants and employees of all kinds were in the employ of the said Department on the 10th day of October, 1911, and how many on the 31st of March, 1917. 3. How many permanent civil servants or officials were appointed by said Department since the 1st of August, 1914. 4. How many temporary civil servants and employees were employed by said Department since August 1, 1914, 5. What was the gross amount paid by said Department for salaries and expenses to both permanent and temporary civil servants and employees for the fiscal year ending March 31, 1911. 6. What was the gross amount paid by said Department for salaries and expenses of all

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permanent and temporary civil servants and employees for the fiscal year ending March 31, 1917. 7. How many civil servants were appointed by said Department since October 10, 1911, under the provisions of Section 21 of the Civil Service Act. Presented May 31, 1917.—*Mr. Sinclair*.. .. .. .

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by said Department since 1st of August, 1914. 4. How many temporary civil servants and employees were employed by said Department since August 1, 1914, 5. What was the gross amount paid by said Department for salaries and expenses to both permanent and temporary civil servants and employees for the fiscal year ending March 31, 1914. 6. What was the gross amount paid by said Department for salaries and expenses of all permanent and temporary civil servants and employees for the fiscal year ending March 31, 1917. 7. How many civil servants were appointed by said Department since October 10, 1911, under the provisions of Section 21 of the Civil Service Act. Presented by Hon. Mr. Roche, July 10, 1917.—*Mr. Kyte*.. .. ..*Not printed.*

138*g*. Return to an Order of the House of the 23rd April, 1917, for a return showing:—1. How many permanent civil servants or officials were in the employ of the Department of Agriculture on the 10th day of October, 1911, and how many on the 31st day of March, 1917. 2. How many temporary civil servants and employees of all kinds were in the employ of the said Department on the 10th day of October, 1911, and how many on the 31st of March, 1917. 3. How many permanent civil servants or officials were appointed by said Department since the 1st of August, 1914. 4. How many temporary civil servants and employees were employed by said Department since August 1, 1914, 5. What was the gross amount paid by said Department for salaries and expenses to both permanent and temporary civil servants and employees for the fiscal year ending March 31, 1914. 6. What was the gross amount paid by said Department for salaries and expenses of all permanent and temporary civil servants and employees for the fiscal year ending March 31, 1917. 7. How many civil servants were appointed by said Department since October 10, 1911, under the provisions of Section 21 of the Civil Service Act. Presented August 15, 1917.—*Mr. Hughes* (*P.E.I.*).. .. ..*Not printed.*

138*h*. Return to an Order of the House of the 2nd May, 1917, for a return showing:—1. How many permanent civil servants or officials were in the employ of the Department of State and Mines on the 10th day of October, 1911, and how many on the 31st of March, 1917. 2. How many temporary civil servants and employees of all kinds were in the employ of the said Department on the 10th day of October, 1911, and how many on the 31st of March, 1917. 3. How many permanent civil servants or officials were appointed by said Department since the 1st of August, 1914. 4. How many temporary civil servants and employees were employed by said Department since August 1, 1914, 5. What was the gross amount paid by said Department for salaries and expenses to both permanent and temporary civil servants and employees for the fiscal year ending March 31, 1911. 6. What was the gross amount paid by said Department for salaries and expenses of all permanent and temporary civil servants and employees for the fiscal year ending March 31, 1917. 7. How many civil servants were appointed by said Department since October 10, 1911, under the provisions of Section 21 of the Civil Service Act. Presented August 21, 1917.—*Mr. McKenzie*.. .. ..*Not printed.*

139. Return to an address to His Excellency the Governor General of the 23rd April, 1917, for a copy of the Order in Council and all other papers in connection with the awarding of the contract to J. C. Shields and others, or to the Inland Express Company for carrying the mails from Ashcroft to Fort George, B.C. Presented May 2, 1917.—*Mr. Turriff*.. .. ..*Not printed.*

140. Return to an Address to His Excellency the Governor General of the 31st January, 1917, for a copy of all correspondence exchanged with the Governement of the Province of Manitoba concerning a statute passed by the Legislature of Manitoba at its last session, entitled, "An Act to amend the Jury Act"; together with copies of all Orders in Council respecting same. Presented May 3, 1917.—*Sir Wilfrid Laurier*.. *Not printed*

141. Return to an Order of the House of the 7th February, 1917, for a return showing:—1. The number of interned allens, and nationality of each, employed on public works since the 4th August, 1914. 2. The number employed in industrial work in the provinces of Canada, and the nationality of each, since the 1st of August, 1914. 3. The number so employed at the present time. Presented May 3, 1917.—*Mr. Kyte*.. .. .. ..*Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

142. Return to an Order of the House of the 2nd May, 1917, for a copy of the report of the Royal Commission appointed by Order in Council, 20th September, 1916, to inquire into and report upon the conditions in regard to the delivery of cargoes of coal to coasting vessels in the Maritime Provinces. Presented May 7, 1917.—*Mr. Hughes (Kings, P.E.I.)*.. .. ..*Not printed.*

143. Return to an Order of the House of the 31st January, 1917, for a return showing:—1. How many applicants for enlistment in the Canadian Overseas Forces have been rejected on account of being physically unfit. 2. How many have been discharged after enlistment for the same reason. Presented May 7, 1917.—*Mr. Steele*.. ..*Not printed.*

143*a*. Return to an Order of the House of the 30th April, 1917, for a return showing:—1. How many Americans have enrolled in Canadian Regiments since the commencement of the war. 2. How many natives of the British Isles are so enrolled in Canada since the 1st of August, 1914. Presented July 31, 1917.—*Mr. Boulay*.. .. ..*Not printed.*

143*b*. Return to an Order of the House of the 31st January, 1917, for a return showing:—1. How many men have enlisted in Canada for overseas service. 2. How many of these have been subsequently discharged as unfit. 3. How many of these were discharged in Canada, and how many overseas. Presented May 7, 1917.—*Mr. Graham*..*Not printed.*

143*c*. Return to an Order of the House of the 14th May, 1917, for a return showing:—1. Whether the Minister of Militia or any of the authorities of the Militia Department has official statistics as to the recruiting of soldiers in Canada for overseas service. 2. If so, what the correct figures are of enlistments in the different overseas regiments raised since August, 1914, to date (*a*) Canadian speaking the French language (*b*) Canadians speaking the English language and born in Canada; (*c*) British subjects by birth born outside of Canada; (*d*) British subjects by naturalization; (*e*) British subjects by birth born outside of Canada; (*d*) British subjects by naturalization; (*e*) French Canadian soldiers in regiments commanded by officers speaking the English language raised in the province of Quebec; and (*f*) French Canadian soldiers in battalions raised in the other provinces of Canada. Presented June 14, 1917.—*Mr Lanctôt*.. .. ..*Not printed.*

143*d*. Copy of Census Statistics showing Summary of Strength of all Units of the Canadian Expeditionary Forces in England, period 14th May, 1917, together with statement showing number of Canadian troops in France, England, in the Near East, St. Lucia and in Canada, June, 1917. Presented by Sir Edward Kemp, June 15, 1917.. ..*Not printed.*

144. P.C. 2314, dated 7th October, 1916, appointing a Special Seed Commissioner and three assistants, with authority to purchase seed wheat to fill requisitions for seed from municipal governing bodies in districts that have suffered crop failure due to the prevalence of rust and frost. Also, P.C. 2073, dated 14th December, 1916 authorizing the Special Seed Commission to purchase seed oats and seed barley to fill requisitions for seed from municipal governing bodies and farmers' organizations in districts where there is no supply. Presented by Hon. Mr. Burrell, May 8, 1917 .. ..

CONTENTS OF VOLUME 21—*Continued.*

146*b*. Tabulated statement showing list of points on the Eastern Division of the National Transcontinental Railway from which rails were lifted for shipment overseas to France, mileage lifted at each point and replaced with rails from Intercolonial Railway (together with a map accompanying same). Presented by Hon. Mr. Cochrane, June 21, 1917.. .. .. .

CONTENTS OF VOLUME 21—*Continued.*

156. Return to an Order of the House, of the 22nd March, 1916, for a Return showing:—1. The number of conductors, brakemen, drivers and firemen, respectively, who were on duty on the Canadian Government Railways between Moncton and Campbellton during the month of February, 1916. 2. The number of hours each of the above mentioned trainmen and enginemen were on duty each trip between said points during said month of February, 1916. Presented May 21, 1917.—*Mr. Copp*.. .. ..*Not printed.*

157. Report of Exchequer Court proceedings under Section 49A of the Indian Act, in respect to the removal of the Indians from Sydney Reserve, Nova Scotia. Presented by Hon Mr. Roche, May 22, 1917.. .. ..*Not printed*

158. Report of the work of the Military Hospitals Commission from its inception to the present date. Presented by Sir Robert Borden, May 23, 1917. .. ..*Not printed.*

159. Copy of correspondence between Members of the Government and the Canadian Manufacturers Association respecting the purchase of supplies for the Canadian Expeditionary Forces in England and at the Front. Presented by Sir Robert Borden, May 23, 1917.. .. ..*Not printed*

160. Return to an Order of the House, of the 14th May, 1917, for a copy of the correspondence between the Prime Minister and the ex-Minister of Militia and Defence, which led to the latter's resignation or dismissal from the Government. Presented by Sir Robert Borden, May 23, 1917.—*Mr. Hughes (King's, P.E.I.)*.. .. ..*Not printed*

161. Return to an humble Address of the Senate to His Excellency the Governor General, dated the 26th day of January, 1917, for a statement showing the date and object of all commissions instituted by the Government of the day, since its accession to power in 1911, up to the present date; the number of days during which each of these commissions sat, giving the names of the individuals who formed part of such commissions, and what was the cost of each to the country. (*Senate.*).. .. .. ..*Not printed*

161*a*. Part Return to an humble Address of the Senate, dated the 7th day of February, 1917, to His Excellency the Governor General, for:—A statement showing the date, the object and the personnel of all commissions instituted by the late Government from its accession to power in 1896, up to the accession to power of the present Government in 1911, the number of days during which each of these commissions sat, and what was the cost of each to the country. (*Senate.*).. .. ..*Not printed*

162. Order in Council P.C. 1133, dated 21th May, 1917, containing regulations concerning the departure out of Canada of male persons who are liable to or capable of national service of a military or other character. Presented by Hon Mr. Roche, May 29, 1917. *Not printed*

163. Return to an Address to His Excellency the Governor General, of the 23rd May, 1917, for a copy of the Order in Council, if any, providing that preference in appointments to the Civil Service should be given to returned soldiers. Presented May 29, 1917.—*Mr. Boulay*.. .. .. *Not printed*

164. Return to an Order of the House, of the 3rd February, 1917, for a copy of all reports findings, evidence, memoranda, etc., in connection with the inquiry into the damage sustained by H.M.C.S. *Grilse* en route from Halifax to Bermuda. Presented May 30, 1917.—*Mr. Maclean (Halifax)*.. .. .. *Not printed*

165. Return to an Order of the House, of the 14th May, 1917, for a copy of all letters, petitions, correspondence, telegrams and reports in any way referring to the dismissal or retirement of D. McDermid, Superintendent of Fish Hatchery at East Margaree, and the appointment of his successor. Presented May 30, 1917.—*Mr. Chisholm*. *Not printed*

166. Return to an Order of the House, of the 25th April, 1917, for a copy of all letters, telegrams, reports and other papers and documents relative to the application of Willis Kelzer of Hall's Harbour, King's County, N.S., for a license to operate a fishing weir at Square Cove, King's County, N.S. Presented May 30, 1917.—*Mr. Maclean (Halifax)*. *Not printed*

CONTENTS OF VOLUME 21—*Continued.*

167. Return to an Address to His Excellency the Governor General, of the 23rd April, 1917, for a copy of all correspondence, memoranda, Orders in Council, etc., in reference to the dismissal of Moses H. Nickerson, as Inspector of Life-saving Stations in Nova Scotia Presented May 30, 1917.—*Mr. Maclean (Halifax)*.. .. ..*Not printed.*

168. Copies of Pension Regulations with amendments and as amended to February 28, 1917, with copies of Orders in Council relating thereto. Presented by Sir Thomas White, May 30, 1917.. .. ..*Printed for sessional papers only.*

168a. Copy of Order in Council, P.C. 277, dated 30th January, 1917, regarding pensions of officers or their dependants in respect of the exchange of officers between the Government of Canada and the Imperial Government. Presented by Sir Edward Kemp, August 20, 1917.. .. ..*Not printed.*

169. Return to an Order of the House, of the 14th May, 1917, for a copy of all letters, correspondence, petitions, telegrams and reports between the Minister of Marine and Fisheries and any person or persons in any way referring to the removal of the salmon nets on that portion of the coast of Inverness extending east and west from the mouth of the Margaree River. Presented May 31, 1917.—*Mr. Chisholm*.. .. .. ..*Not printed.*

170. Return to an Order of the House, of the 2nd May, 1917, for a copy of the report of the Commission appointed to investigate the condition of the Military Hospital at Halfax, with a copy of the evidence taken by said Commission at Halifax and all other documents in the possession of the Department of Militia and Defence in connection with such investigation. Presented May 31, 1917.—*Mr. Sinclair*.. .. ..*Not printed.*

171. Return to an Order of the House, of the 7th May, 1917, for a return showing the amount paid or spent by the Department of Militia in advertising for recruits in Canada, showing the persons, firms and corporations to whom the payments were made, up to April 1, 1917. Presented May 31, 1917.—*Mr. Macdonald*.. .. .. ..*Not printed.*

172. Finding of the Court of Inquiry appointed by the Adjutant-General by Orders dated the 1st May, 1917, for the purpose of collecting and recording evidence in connection with the allegations contained in several newspapers that Troop Trains had been stoned passing through Rivière-du-Loup, Quebec, and other places, and for the purpose of collecting and recording any other evidence which, in the opinion of the Members of the Court, in any way relates to or has a bearing on this matter. Presented by Sir Edward Kemp, May 31, 1917.. .. ..*Not printed.*

173. Finding of the Court of Inquiry appointed by the Adjutant-General by Orders dated the 1st May, 1917, for the purpose of collecting and recording evidence in connection with the allegations contained in several newspapers accusing the citizens of Quebec of maltreating or allowing to be maltreated, soldiers returning from the War and passing through or sojourning in Quebec, and for the purpose of collecting and recording any other evidence which, in the opinion of the Members of the Court, in any way relates to or has a bearing on the matter. Presented by Sir Edward Kemp, May 31, 1917.. .. ..*Not printed.*

174. Return to an Order of the House, of the 7th May, 1917, for a copy of all accounts, letters, claims, correspondence and other documents relating to the following amounts mentioned in the Report of the Auditor General 1916, Vol. II, page L—11:—Mr. Justice L. P. Pelletier, travelling expenses, $877; Mr. Justice L. N. Belleau, travelling expenses, $1,984.44; Mr. Justice T. H. Chauvin, travelling expenses, $1,121.25; Mr. Justice B. LeTellier, travelling expenses, $1,923.80. Presented May 31, 1917.—*Mr. Lanctot*.. .. ..*Not printed.*

175. Return to an Order of the House, of the 30th May, 1917, for a Return showing:—1. The number of persons appointed to permanent position on the Canadian Government Railways from January 1, 1916, to March 31, 1917, who were not previously employed on the said Railways. 2. Their names, salaries and the positions to which they were appointed. Presented May 31, 1917.—*Mr. Copp*.. .. ..*Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

176. Return to an Order of the House, of the 12th February, 1915, for a Return showing how many persons of German nationality are employed in the several Departments of the Federal Government, in what capacity and the salaries received respectively. Presented June 1, 1917.—*Mr. Delisle*.. .. ..*Not printed.*

177. Return to an Order of the House, of the 1st May, 1916, for a copy of all correspondence and papers relating to the change in the location of the post office at Roseberg, Alberta. Presented June 1, 1917.—*Mr. Buchanan*.. .. ..*Not printed.*

178. Return to an Order of the House, of the 8th May, 1916, for a copy of all correspondence, letters and telegrams relating to the dismissal of Augustin D. Lauteigne as Postmaster of Island River, Gloucester County, N.B. Presented June 1, 1917.—*Mr. Turgeon.*
Not printed.

179. Return to an Order of the House, of the 31st January, 1917, for a copy of all letters and telegrams in the Post Office Department in reference to the removal of Pearson's Post Office, Township of Casey, in the Constituency of Nipissing, from where it was located to its present location. Presented June 1, 1917.—*Mr. Turriff*.. ..*Not printed.*

180. Return to an Order of the House, of the 5th February, 1917, for a copy of all letters, reports, papers and other documents relative to the dismissal of John R. McIntosh as Postmaster of Cummings Mountain, Pictou County, and the appointment of James Cummings as his successor. Presented June 1, 1917.—*Mr. Macdonald*. ..*Not printed.*

181. Return to an Order of the House, of the 2nd May, 1917, for a Return showing the gross amount paid by the Government since October, 1911, to H. P. Duchemin of Sydney, N.B., for services and disbursements under the Public Inquiries Act, or otherwise. Presented June 1, 1917.—*Mr. Sinclair*.. .. .. *Not printed.*

182. Return to an Order of the House, of the 3rd February, 1917, for a copy of all correspondence, letters, telegrams and other documents concerning the cancelling by the Post Office Department of the rural mail contract granted to Hyppolite Lambert of St. Antoine, in the County of Lotbinière, Que. Presented June 1, 1917.—*Mr. Fortier.*
Not printed.

183. Reports, pursuant to a Resolution of the House adopted on the 18th May, 1916, based on a recommendation of the Joint Committee of both Houses on Printing of Parliament, requesting information from the several Departments of Government with the view to effecting all possible economy in the matter of public printing and the distribution of public documents, and the extent, if any, to which such recommendations have been carried into effect. Presented by Hon. Mr. Pateneaude, June 1, 1917.. .. *Not printed.*

184. Return to an Order of the House, of 21st May, 1917, for a copy of all correspondence, reports and recommendations, if any, from the Grain Commission to the Department of Trade and Commerce or any other Department of the Government at Ottawa, following a meeting of the Grain Commissioners held in Lethbridge this year. Presented June 1, 1917.—*Mr. Buchanan* .. .. *Not printed.*

185. Order in Council passed in conformity with provisions of 4-5 George V, chapter 35, s. 4 (C. N. Railway).—(*The Senate*) .. .. *Not printed.*

186. Return to an Order of the House of the 3rd February, 1917, for a return showing the quantity and value of exports in following commodities for the first nine months of present fiscal year.—Horses, brass and manufactures of same, wheat, breadstuffs, oats and grain other than wheat; automobiles, bicycles, motorcycles and parts of same, including engines and tires; railway cars and parts; chemicals, drugs and medicines; manufactures of same; cotton manufactures; explosives; iron and steel and manufactures of same; firearms and munitions, leather and manufactures of same; meat and dairy products; alcohol, vegetables, dried and canned; hats, wearing apparel of all descriptions and manufactures of same; paper and manufactures of same. Presented June 1, 1917.—*Mr. Maclean* (*Halifax*). .. .. *Printed* (*in abstract form*) *page 1482.*

CONTENTS OF VOLUME 21—*Continued.*

187. Return to an Order of the House, of the 30th April, 1917, for a copy of all documents, correspondence, letters, telegrams, memoranda and reports exchanged between the Sergeant-at-Arms of the House of Commons and the Honourable Albert Sévigny; the Sergeant-at-Arms and the Justice Department, and between the Department of Justice and the Honourable Albert Sévigny, concerning certain effects, furniture and ornaments connected with the Speaker's Apartments. Also, copy of all accounts, receipts, bills of lading and transportation accounts concerning the said effects, furniture and ornaments. Presented June 5, 1917.—*Mr. Lanctot*.. .. ..*Not printed.*

188. Copy of Order in Council P.C. 1457, dated the 29th May, 1917, respecting pay to members of the Civil Service who join the Military forces of Canada either by voluntary enlistment or otherwise from and after the date hereof. Presented by Sir Thomas White, June 6, 1917... .. ..*Not printed.*

189. Copy of General Reports of W. F. O'Connor, K.C., Acting Commissioner *re* Cost of Living, concerning the production, cost, selling prices, and distribution system of refined sugar. Presented by Hon. Mr. Crothers, June 6, 1917

Printed for distribution and sessional papers.

190. Copy of Reports of W. F. O'Connor, on the subject of the Anthracite Coal business in Canada. Presented by Hon. Mr. Crothers, June 6, 1917.

Printed for distribution and sessional papers.

191. Return to an humble Address of the Senate to His Excellency the Governor General, dated the 22nd of May last, showing a copy of:—All correspondence exchanged between the Government or its Ministers, the Minister of Militia, the Militia Council, Major-General F. L. Lessard, C.B., Inspector-General, or any other person, and Lieutenant-Colonel Armand Lavergne, O.C., the 61st Regiment or any other person, on the subject of the territorial defence of the Province of Quebec, as well as copy of all Orders in Council or documents relating to this subject.—(*Senate*).. .. ..*Not printed.*

192. Copy of Order in Council, P.C. 1579, dated 8th June, 1917, appointing a Fuel Controller for Canada. Presented by Sir George Foster, May 12, 1917.

Printed for sessional papers only.

192*a*. Copy of Order in Council, P.C. 1460, dated 16th June, 1917, *re* the appointment of an Officer to be known as Food Controller for Canada, and specifying his powers and duties. Presented by Sir Robert Borden, June 19, 1917.

Printed for sessional papers only.

193. Copy of Order in Council, P.C. 1604, dated 11th June, *re* the establishment of "The Board of Grain Supervisors of Canada." And also, Copy of Order in Council, P.C. 1605, dated 11th June, 1917, appointing certain persons as members of "The Board of Grain Supervisors of Canada." Presented by Sir George Foster, May 12, 1917.

Printed for sessional papers only.

194. Copies of Census Statistics of male population of Canada, Census of 1911, between the ages of 20 and 45, both years inclusive, according to conjugal condition and nativity. Presented by Sir Edward Kemp, June 13, 1917.

Printed for sessional papers only.

195. Copies of The King's Regulations and Orders for the Army, 1912, re-printed with amendments published in Army Orders up to 1st August, 1914. Presented by Sir Edward Kemp, June 13, 1917... .. ..*Not printed.*

196. Copies of Manual of Military Law, War Office, 1914. Presented Sir Edward Kemp, June 13, 1917.. .. ..*Not printed.*

197. Copy of Order in Council, P.C. 987, dated 10th April, 1917, as amended by Order in Council No. 1151, dated 25th May, 1917: Regulations, being as Consolidation of and additions to various Orders in Council made in consequence of the War, the whole to be known as the "Defence of Canada Order, 1917." Presented by Hon. Mr. Hazen, June 13, 1917... .. ..*Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

198. Return to an Order of the House, of the 14th May, 1917, for a copy of all letters petitions, correspondence, telegrams and reports in any way referring to dismissal retirement or resignation of John McDonald, as Janitor of public building at Inverness, and the appointment of his successor. Presented June 15, 1917.—*Mr. Chisholm*.. *Not printed.*

199. Return to an Order of the House, of the 14th May, 1917, for a copy of all letters petitions, correspondence, telegrams and reports received by the Government since September, 1911, to the present day, in any way referring to the extension and repairs to McKay's Point Wharf, Inverness County. Presented June 15, 1917.—*Mr. Chisholm*.. .. .. .

CONTENTS OF VOLUME 21—*Continued.*

206. Letter of the Honourable E. L. Patenaude, M.P., to the Right Honourable the Prime Minister, resigning his position as Secretary of State for Canada, and the letter of the Prime Minister in acknowledgment thereof. Presented by Sir Robert Borden, June 18, 1917.. .. ..*Not printed.*

207. Return to an Order of the House, of the 3rd May, 1917, for a Return showing:—1. How much merchandise has been exported from Canada into Foreign Countries since the first of August, 1914, to the present time? 2. How much of these goods have gone through the Port of Hamburg? 3. What countries have imported this merchandise from Canada, and the respective amounts for each of them? Presented June 18, 1917.—*Mr. Verville*.. .. ..*Not printed.*

208. Return to an Order of the House, of the 3rd February, 1916, for a return showing the itemized disbursements of Ward Fisher, Inspector of Fisheries for Western Nova Scotia, for the year 1912, amounting to $388.40, and the year 1913, amounting to $1,009.84. Presented June 18, 1917.—*Mr. Lalor*.. .. ..*Not printed.*

209. Return to an Order of the House, of the 23rd April, 1917, for a copy of all papers, documents, petitions, memoranda, correspondence, etc., with the Government of British Columbia or any member thereof with the Fishery Officers of the Marine and Fisheries Department resident in said Province, and with any Company, person or persons relating to prohibition of the export of British Columbia salmon since January 20, 1913. Presented June 18, 1917.—*Mr. McKenzie*.. .. ..*Not printed.*

210. Statement of Amount and Price of Commodities purchased and sold (including export and home consumption) by Cold Storage Companies in Canada from January 1 to December 1, 1916. Presented by Hon. Mr. Crothers, June 18, 1917.. .. ..*Not printed.*

210*a*. Report of W. F. O'Connor, K.C., Acting Commissioner *re* Cost of Living, concerning Cold Storage Conditions in Canada. Presented by Hon. Mr. Crothers, July 13, 1917. *Printed for distribution and sessional papers.*

210*b*. Copy of Order in Council, P.C. 2021, dated 23rd July, 1917, recommending the further investigation into the premises, books, papers and records of the William Davies Company, Limited, and Matthews-Blackwell, Ltd., as disclosed by the report of W. F. O'Connor, Acting Commissioner on the Cost of Living, on the subject of cold storage conditions in Canada, and appointing G. F. Henderson, A. B. Brodie and Geoffrey Clarkson with all the powers of Examiners under Part I of the Inquiries Act to inquire into the books, papers, etc., of the said companies; also to recommend in writing to the Minister of Labour a standardized system of costs accounting applicable to the cold storage business by which the net profits of cold storage companies in Canada may from time to time be readily ascertained. Presented by Hon. Mr. Crothers, July 25, 1917.. .. ..*Not printed*

211. Return to an Order of the House, of the 11th June, 1917, for a copy of all correspondence, telegrams, requests, petitions and other papers in the possession of the Department of Trade and Commerce relating to providing a supply of salt for the fisheries of the Maritime Provinces. Presented by Sir George Foster, June 22, 1917. *Not printed.*

212. Copy of Order in Council, P.C. No. 1725, dated the 25th June, 1917, creating the position of Director of Coal Operations for the southeastern coal fields of the Province of British Columbia and the suthwestern coal fields of the Province of Alberta, known as District 18. And also.—Copy of Order in Council, P.C. No. 1726, dated the 25th June, 1917, appointing W. H. Armstrong, of the City of Vancouver, Director of Coal Operations under the provisions of the above Order in Council, P.C. No. 1725, dated 25th June, 1917. Presented by Sir Robert Borden, June 25, 1917... ..*Not printed.*

212*a*. Return to an Order of the House, of the 14th May, 1917, for a copy of all letters, reports, communications and documents passing between the Minister of Labour and the Department of Labour and the officials of District No. 18, United Mine Workers

CONTENTS OF VOLUME 21—*Continued.*

of Alberta, and the officials of the Alberta and Eastern British Columbia Coal Operators' Association, concerning the requests made by the Miners for an increase in wages due to the increase in the cost of living, between September 1, 1916, and the present time. Presented July 12, 1917.—*Mr. Buchanan*.. .. ..*Not printed.*

213. Return to an Order of the House, of the 13th June, 1917, for a Return showing:—1. How many battalions of infantry left Canada with the First Contingent? 2. The number, and the designations of the different units of artillery which left with the First Contingent? 3. The number and the designation of the different medical corps which left Canada with the First Contingent? 4. The number and the designation of all the other units which left with the First Contingent? 5. The names, rank and duties of the supernumerary officers who left with the First Contingent. Presented June 26, 1917.—*Mr. Lachance*.. .. ..*Not printed.*

214. Return to an Address to His Excellency the Governor General, of the 30th May, 1917, for a copy of all correspondence, letters, cables and other documents exchanged between the Imperial Government or any of its members or officials with the Canadian Government or any of its members or officials, relative to the question of the proposed legislation by the Imperial Parliament to validate certain Acts and proceedings of the Legislature of British Columbia. Presented June 27, 1917.—*Mr. Macdonald*.. .. ..*Not printed.*

215. Return to an Order of the House, of the 4th June, 1917, for a copy of all correspondence between the Chief of the *Hansard* Translation Staff of the House, the Clerk of the House and the Speaker, since April 19, 1917, to date. Presented June 28, 1917.—*Mr. Lemieux*.. .. ..*Not printed*

216. Return to an Order of the House, of the 27th March, 1916, for a return showing the amounts paid by the Federal Government from the 1st July, 1896, to the 1st October, 1911, to the following newspapers: Le *Canada*, *La Presse*, *La Patrie*, *Le Pays*, of Montreal, *La Vigie* and *Le Soleil*, of Quebec. Presented June 28, 1917.—*Mr. Boulay*.. .. ..*Not printed.*

217. Return to an Order of the House, of the 3rd May, 1917, for a Return showing the number of employees of the following Departments after 1896, and after 1911, respectively, viz.:—Inland Revenue, Interior, Public Works, Marine and Fisheries, Militia and Defence, Labour and Department of Trade and Commerce. Presented June 28, 1917.—*Mr. Boulay*.. .. ..*Not printed.*

218. Return to an Order of the House, of the 7th May, 1917, for a Return showing the number of returned soldiers who have been given employment in the various departments of the Government. Presented June 28, 1917.—*Mr. Lemieux*.. .. ..*Not printed.*

219. Return to an Order of the House, of the 25th June, 1917, for a copy of the reports made by the Penitentiary Surgeons in connection with the release from Penitentiary of Edward Levi Baugh. Presented July 4, 1917.—*Mr. Murphy*.. .. ..*Not printed.*

220. Return to an Order of the House, of the 21st May, 1917, for a return giving the names and salaries of employees of the Interior and Indian Departments (*a*) Inside Service and (*b*) Outside Service, who volunteered for overseas service and who were paid their full civil salary in addition to their military pay and allowances.

Those who volunteered for overseas service and who were paid a sufficient portion of their civil salary in addition to their military pay and allowances to bring their pay up to the amount of their civil salary.

Those who volunteered for overseas service and who received consideration (stating consideration) on account of their civil employment in addition to their military pay and allowances.

Those who volunteered for overseas service and who do not receive any consideration on account of their civil employment in addition to their military pay and allowances. Presented July 5, 1917.—*Mr. Oliver*.. .. ..*Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

221. Report of Special Trade Commission to Great Britain, France and Italy, May-September, 1916. Presented by Sir George Foster, July 5, 1917... ..*Not printed.*

222. Return to an Order of the House, of the 13th June, 1917, for a Return showing:—1. The total expenditure connected with Agriculture by the Federal Government in each of the fiscal years from 1904-05 to 1916-17, inclusive. 2. How much money was set apart by the Agricultural Aid Act of 1912 to assist the Provincial Departments of Agriculture to improve and extend their work? 3. How much of above amount was given to each Province, and what was accomplished in each Province as a result of such assistance? 4. How much money was set apart by the Federal Government under the Agricultural Instructions Act of 1913, and under the provisions of the said Act what amounts were respectively allotted each year to the several Provinces? 5. What the general purpose of said Act is, and to what extent that purpose has been made effective in each Province. Presented July 5, 1917.—*Mr. Edwards.*
Printed for sessional papers only.

223. Return to an Order of the House, of the 11th June, 1917, for a Return showing:—1. Whether Mr. Giard, ex-M.P.P. for Compton, is an employee of the Government? 2. If so, since when? 3. The number of employees under his orders and their respective names? 4. What salary does said Giard receive? 5. The salary of each employee under his charge? 6. Whether he has bought, for the Government, any animals for breeding purposes? 7. If so, how many, and the price paid for each? 8. Where these animals were bought? 9. How many of them have been rejected or returned to the Government or to Mr. Giard? 10. If any have been refused or returned, why? 11. Where the said breeding animals are at present? 12. What the Government or the Department of Agriculture intends to do with the animals so refused and returned to Mr. Giard? Presented July 5, 1917.—*Mr. Gauvreau* *Not printed.*

224. Return to an Address to His Excellency the Governor General, of the 31st January, 1917, for a copy of all documents, letters, messages, correspondence, reports and particularly an Order in Council dated 6th December, 1898, respecting the exemption from military service of the Doukhobors. Presented by Hon. Mr. Roche, July 9, 1917. —*Mr. McCraney*.. .. ..*Not printed.*

225. Return to an Address to His Excellency the Governor General, of the 31st January, 1917, for a copy of all Orders in Council and other documents on file in the Department of Marine and Fisheries relating to the requisitioning of Canadian ships by the Canadian Government. Presented July 11, 1917.—*Mr. Sinclair*.. .. ..*Not printed.*

226. Return to an Order of the House of the 7th June, 1917, for a return showing the number of recruiting officers which have been appointed in the province of Quebec, with the names, addresses, nature of functions and salaries of the same. Presented July 11, 1917.—*Mr. Carvell*.. .. ..*Not printed.*

226a. Return to an Order of the House of the 18th June, 1917, for a return showing:—1. The names and addresses of the parties on Prince Edward Island who have been engaged or who are now engaged in recruiting for the army and navy or doing other work of a like military character, since August, 1914. 2. The remuneration or pay each of the said parties receives and the allowance given for travelling or other expenses. 3. The total amount each person has received up to the 1st of June, 1917. Presented July 31, 1917.—*Mr. Hughes (P.E.I.)*.. .. ..*Not printed.*

227. Return to an Order of the House of the 12th April, 1916, for a return showing:—1. How many clerks there are in the Post Office Department who belong to and are paid from the outside service vote, and who work in the inside service. 2. The names of said clerks. 3. Salary paid to each. 4. How long each has been in the service of the Department. 5. If all or any of the clerks have passed any examination. If so, what examination, and on what date or dates. Presented July 14.—*Mr. Turriff*..*Not printed.*

228. Copy of a memorandum presented by the Southern Slav Committee to the representatives of the British Dominions, setting forth the aims and aspirations of the Jugo-slavs (Serbs, Croats and Slovens) subject to Austro-Hungarian rule. Presented by Sir Robert Borden, July 20, 1917.. .. ..*Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

229. Claims made by Minister of Justice relating to payment of duties by certain provinces. *(Senate.)* .. .. ..

CONTENTS OF VOLUME 21—*Continued.*

235. Return to an Order of the House of the 20th June, 1917, for a return showing:—1. The names of the members of the military staff at North Vancouver. 2. Their respective duties or occupations. 3. The rank and rate of pay of each. 4. The amount that has been paid to each. 5. Upon what date or dates the members of the said staff enlisted, and how long they have been attached to the staff. Presented July 31, 1917.—*Mr. Murphy*.. .. .. .

CONTENTS OF VOLUME 21—*Continued.*

240. Return to an Order of the House of the 13th June, 1917, for a statement showing the travelling expenses of Maurice LeBlanc, general foreman of the Department of Public Works, Bonaventure County, since his appointment to date. Presented August 8, 1917. —*Mr. Marcil (Bonaventure)*.. .. .. *Not printed*

241. Return to an Order of the House of the 30th April, 1917, for a copy of all letters, petitions, correspondence and telegrams exchanged between the Government, the resident engineer and all other persons concerning the dredging work done at Ste. Anne de Bellevue, Pointe Fortune, Ottawa River channel between Ile au Foin and Ile Paquin, Graham channel, Rigaud channel, Hudson Heights channel, Ile Perrot Church, Ile Perrot South wharf and Ile Perrot North wharf, since 1904. Also a statement showing the amounts paid to different persons or companies for such work, giving the dates of payment, along with a copy of the estimates already brought down at my request regarding the above, previous to 1904. Return to an Order of the House of the 24th April, 1917, for a copy of all letters, petitions, correspondence, telegrams and reports exchanged between the Government, the resident engineer of the district, and all other persons, concerning the dredging work done since 1904 at the wharf of Ile Perrot North, South and the Church, Dorion Bay channel, Vaudreuil Village channel, Pointe Cavagnal, Como, Hudson Heights channel, Graham channel, Rigaud River channel, Ottawa River, Iles aux Poires channel, Pointe Fortune and Ste. Anne de Bellevue channel. Also a statement showing the amount of money paid to divers persons, companies, etc., for such works, along with copy of statements already presented at my request in connection with the same work, previous to 1904. Presented August 8, 1917. —*Mr. Boyer*.. .. .. *Not printed*

242 Return to an Order of the House of the 14th May, 1917, for a copy of all letters, petitions, correspondence, telegrams and reports received by the Government since September, 1911, to the present day, in any way referring to the extension and repairs to Finlay Point wharf. Presented August 8, 1917.—*Mr. Chisholm*.. .. .. *Not printed*

243. Return to an Order of the House of the 30th April, 1917, for a copy of all correspondence in the possession of the Department of Public Works bearing date after September 1, 1915, relating to wharves, breakwaters and other public works situate in the County of Antigonish, Nova Scotia. Presented August 8, 1917.—*Mr. Sinclair*.. .. .. *Not printed*

244. Return to an Order of the House of the 7th May, 1917, for a copy of all documents, correspondence, reports, accounts, pay-lists, etc., in connection with the work done on the Government wharves at Cross Point, Miguasha, St. Omer and New Carlisle, Quebec, since 1912. Presented August 8, 1917.—*Mr. Marcil (Bonaventure)*.. .. .. *Not printed*

245. Return to an Order of the House of the 14th May, 1917, for a copy of all letters, petitions, correspondence, telegrams and reports received by the Government since September, 1911, to the present day, in any way referring to the wharf at Marble Mountain. Presented August 13, 1917.—*Mr. Chisholm*.. .. ..

CONTENTS OF VOLUME 21—*Continued.*

248. Return to an Order of the House of the 14th May, 1917, for a copy of all letters, petitions, correspondence, telegrams and reports received by the Government since September, 1911, to the present time, in any way referring to the opening of Inverness Harbour. Presented August 13, 1917.—*Mr. Chisholm*.. .. ..*Not printed.*

249. Return to an Order of the House of the 23rd April, 1917, for a copy of all papers, documents, petitions, memoranda, correspondence, etc., with reference to the Government of the Dominion of Canada building competing telephone lines in British Columbia paralleling lines already in operation of the Okanagan Telephone Company, Limited. Presented August 13, 1917.—*Mr. Carvell*.. .. ..*Not printed.*

250. Return to an Order of the House of the 30th April, 1917, for a copy of all correspondence in the Department of Public Works bearing date after September 1, 1915, relating to wharves, breakwaters and other public works in the County of Guysborough, Nova Scotia. Presented August 13, 1917.—*Mr. Sinclair*.. .. ..*Not printed.*

251. Return to an Order of the House of the 30th April, 1917, for a copy of all papers, records and other documents concerning the reference by the Dominion Government to the question relating to the exclusive right of fishing in the tidal waters of the province of Quebec. Presented August 15, 1917.—*Mr. Lemieux*.. .. ..*Not printed.*

252. Return to an Order of the House of the 9th July, 1917, for a return showing the names of all persons employed in connection with the Office of the Commissioner of Live Stock in the Province of Saskatchewan, showing the salaries and expenses paid them; and also showing the number of stallions and bulls placed in Saskatchewan when the said office was established. Presented August 15, 1917.—*Mr. Thomson* (*Qu'Appelle*).
Not printed.

253. Return to an Order of the House of the 14th May, 1917, for a copy of all letters, telegrams and reports between the Department of the Naval Service of the Department of Marine and Fisheries, and any and all persons in connection with the seizure of certain fishery boats, fishing tackle and equipment being used in the illegal fishing of lobsters in the Straits of Northumberland in the fall of 1916, together with a copy of the evidence taken before one M. G. Teed, Esquire, acting as a commissioner to inquire into this matter, and his report and finding thereon. Presented August 16, 1917.—*Mr. Copp*
Not printed.

254. Return to an Order of the House of the 30th July, 1917, for a copy of all correspondence between the Department of Militia and Defence of Canada, the War Purchasing Commission of Canada, and the British War Office, concerning a target practice rod or the use of same by the Canadian Expeditionary Force. Presented August 20, 1917.—*Mr. Maclean (Halifax)*.. .. ..*Not printed.*

255. Return to an Order of the House of the 7th June, 1917, for a return showing:—1. Whether the Department of Agriculture supply thoroughbred bulls for improvement of stock to applicants for the same. 2. If so, if any such bulls have been sent into the County of Dorchester, Quebec, and when. 3. At whose request these bulls were sent, and if they belonged to the Department of Agriculture. 4. If so, on what condition they were supplied. 5. From whom the department purchased the animals referred to. 6. The price paid. 7. If any official of the Department of Agriculture has made an investigation as to where these bulls are at the present time. 8. If so, the substance of their report. 9. Whether the said bulls are being used for the purpose for which they were intended. Presented August 21, 1917.—*Mr. Lanctôt*.. .. .. ..*Not printed.*

256. Return to an Order of the House of the 1st August, 1917, for a return showing the amount which has been paid to the Sydney *Daily Post*, newspaper, by all the departments of the Government for printing and advertising, since the 1st of November, 1911. Presented August 21, 1917.—*Mr. Kyte*.. .. ..*Not printed.*

257. Return to an Order of the House of the 1st August, 1917, for a return showing the gross amount paid to the Halifax *Herald*, the *Evening Mail*, Halifax, and the Royal Print and Lithographing Company, Halifax, by all the departments of the Government for printing, advertising and all other services since November 1, 1911. Presented August 21, 1917.—*Mr. Sinclair*.. .. ..*Not printed.*

CONTENTS OF VOLUME 21—*Continued.*

258. Return to an Order of the House of the 18th June, 1917, for a copy of all accounts, papers, claims and correspondence regarding demands put forward by all persons who have claimed to have sustained loss or damage by the fire in the Parliament Buildings in February, 1916. Presented August 21, 1917.—*Mr. Lancôt*.. .. ..*Not printed*

259. Return to an Order of the House of the 14th May, 1917, for a copy of all communications, letters, reports, petitions and other documents on behalf of the Physicians and Medical Associations of this country, asking for the repeal of The Proprietary or Patent Medicine Act and the presentation of a new Act on the matter in order to render more efficient the control of these medicine preparations, and to add on the prohibition list such drugs or medicines as are generally dangerous to health and conducive to certain criminal practices. Presented August 21, 1917.—*Mr. Lapointe (Kamouraska)*

Not printed.

260. Copy of correspondence between the Honourable Robert Rogers and the Right Honourable Sir Robert Borden, Prime Minister, with reference to the resignation of the former as Minister of Public Works of Canada.—(*The Senate.*).. .. ..*Not printed.*

261. Return to an Order of the Senate dated the 11th day of July, 1917, for a Statement showing the number of officers and men of the Canadian Expeditionary Force who have been classed as unfit for military service; whether the military authorities have given consideration to the possibility of utilizing the services of those men in a subsidiary capacity; whether those who have been classed as unfit continue to draw military pay; the number who have deserted from the various units between 1st October, 1915, and 1st June, 1917; and the number discharged from the various units since 1st October, 1914.—(*The Senate.*).. .. ..

CONTENTS OF VOLUME 21—*Continued.*

266. Return to an Order of the House of the 11th July, 1917, fo a copy of all correspondence and other documents relating to the granting to beam trawlers registered in the United States the privilege of using ports in the Province of Nova Scotia for the purchasing of supplies, the shipping of men, etc., without license therefor as required under the modus videndi. Presented September 3, 1917.—*Mr. Kyte*.. .. .. *Not printed.*

267. Copy of contract dated 8th March, 1917, between His Majesty the King and Wallace Shipyards, Limited, for the construction and delivery of one wooden auxiliary sailing ship. Also,—Copy of contract dated 1st June, 1917, between His Majesty the King and Lamond and Harrison for the construction and delivery of one wooden auxiliary sailing ship. Presented by Hon. Mr. Cochrane, September 3, 1917.. .. ..*Not printed.*

268. Return to an Order of the Senate, dated the 15th day of June last, for a return made to an Order of the House of Commons, of the 7th February, 1916, for a copy of all correspondence and reports on the claims of Sealers of British Columbia under the last treaty with the American Republic, and all papers connected therewith.—(*The Senate.*) *Not printed.*

269. Copy of Order in Council, P.C. 2245, dated 3rd September, 1917, appointing the Deputy Minister of Justice, Oliver Mowat Biggar, of the City of Edmonton, John H. Moss, of the City of Toronto, Louis Loranger, of the City of Montreal, and Lt.-Col. H. A. C. Machin, of the Town of Kenora, Ont., a council to advise and assist in the administration and enforcement of the Military Service Act, 1917, to be known as the Military Service Council. Presented by Sir Robert Borden, September 4, 1917.. ..*Not printed.*

270. Return to an Order of the House of the 21st May, 1917, for a copy of all reports, letters, telegrams, correspondence and any other papers in connection with the question of locating the 210th Battalion at Regina and Moosejaw respectively during the winter of 1916-17. Presented September 6, 1917.—*Mr. Knowles*.. .. ..*Not printed.*

271. Return to an Order of the House of the 14th May, 1917, for a copy of all letters, correspondence, telegrams and reports received by the Government since September, 1911, to the present day, in any way referring to the appointment of a man in charge of the storm signals at Grand Etang and Margaree Harbour. Presented September 6, 1917.—*Mr. Chisholm*.. .. ..*Not printed.*

272. Return to an Order of the House of the 7th May, 1917, for a return showing the different rural mail routes established in the constituency of Qu'Appelle since the 1st day of January, 1916, showing their location and date of establishment. Also, a list of all rural mail routes now being established or under consideration at the present time in the same constituency. Presented September 7, 1917.—*Mr. Thomson* (*Qu'Appelle*). *Not printed.*

273. Return to an Order of the House of the 6th March, 1916, for a copy of all telegrams, letters, petitions and documents of all kinds in any way referring to the change in the Inverness-Margaree mail route from the west to the east of the Margaree river, from a point at Margaree Forks to Chapel Bridge. Presented September 7, 1917.—*Mr. Chisholm*.. .. ..*Not printed.*

274. Copy of Order in Council, P.C. 2199, dated 10th August, 1917: Rules and Regulations enacted in lieu of the Classification, Rules and Regulations contained in Order in Council, P.C. 1296, of the 15th May, 1917, in respect to War badges for members of the Canadian Expeditionary Force. Presented by Sir Edward Kemp, September 13, 1917. *Not printed.*

275. Copy of Order in Council, P.C. 2552, dated 13th September, 1917, recommending that Certificates of Naturalization may be issued under the Naturalization Act, 1914, to alien enemies who have resided for many years in Canada, on its being shown that they are clearly in sympathy with the United Kingdom and its allies in the present war, and that they have no pro-German or other alien enemy alliliations or connections. Presented by Sir Robert Borden, September 14, 1917.. .. ..*Not printed.*

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276. Copy of *Canada Gazette* dated 12th September, 1917, containing a list and location of Local Tribunals established to hear and decide applications for certificates of exemption from Military Service. Presented by Hon. Mr. Doherty, September 14, 1917.
Not printed.

277. Copies of Orders in Council, dated 15th September and 17th September, 1917, respectively, appointing Registrars for the Provinces of British Columbia, New Brunswick, Quebec, Saskatchewan, Manitoba, Ontario, Alberta and Prince Edward Island, under the provisions and for the purposes of the Military Service Act, 1917. Presented by Sir Robert Borden, September 17, 1917.. .. .. .

REPORTS, RETURNS AND STATISTICS

OF THE

INLAND REVENUES

OF THE

DOMINION OF CANADA

FOR THE FISCAL YEAR ENDED MARCH 31

1916

PART I—EXCISE

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY J. DE L. TACHÉ
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1916

To Field Marshal His Royal Highness Prince Arthur William Patrick Albert, Duke of Connaught and of Strathearn, K.G., K.T., K.P., etc., etc., etc., Governor General and Commander in Chief of the Dominion of Canada.

MAY IT PLEASE YOUR ROYAL HIGHNESS:

I have the honour to transmit to Your Royal Highness the RETURNS AND STATISTICS of Inland Revenue of the Dominion of Canada, for the year ended March 31, 1916, as prepared and laid before me by the Deputy Minister of Inland Revenue.

All of which is respectfully submitted.

E. L. PATENAUDE,

Minister of Inland Revenue.

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EXCISE

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	Pge	Pge	Pge	Pge	Pge	Pge	Pge	Pge	Pge	Pge	Pge
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SUPERANNUATION.						
How much deducted from each Officer's salary,						
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REPORT

OF THE

DEPUTY MINISTER OF INLAND REVENUE

To the Hon. E. L. Patenaude,
Minister of Inland Revenue.

Sir,—Herewith I have the honour to submit statements of the Inland Revenues collected by this department during the Fiscal Year ended March 31, 1916, with the usual information as to the cost of collections, and statistics respecting the sources whence these revenues were derived.

The following summary comparison shows the accrued revenue for the Fiscal Years ended March 31, 1912, 1913, 1914, 1915 and 1916.

	1912.	1913.	1914.	1915.	1916.
	$	$	$	$	$
Excise	19,306,069	21,487,918	21,488,867	21,627,908	22,540,406
Ferry Licenses	1,024	529	961	989	980
Weights and Measures, Gas and Law Stamps	163,958	171,569	185,854	172,740	169,454
Electric Light	66,060	74,853	80,476	82,563	70,562
Other Revenues	5,069	7,501	5,524	103,932	8,480
War Tax					1,350,488
Methylated Spirits	93,083	118,077	116,268	96,740	111,846
Totals	19,635,863	21,860,367	21,877,892	22,084,931	24,402,255

DETAILS of Excise Revenue accrued during the undermentioned Fiscal Years:

	1	2	3	4	5
	1912.	1913.	1914.	1915.	1916.
	$	$	$	$	$
Spirits	8,667,666	9,474,142	9,038,028	8,706,481	8,701,075
Malt liquor	86,756	149,437	161,416	142,903	97,779
Malt	1,716 547	1,864,525	2,012,301	2,616,288	2,689,300
Tobacco	8,130,776	9,192,181	9,489,426	9,352,881	10,122,784
Cigars	517,646	602,269	588,935	655,905	635,158
Acetic Acid	11,300	10,526	11,413	7,255	8,250
Manufactures in bond	84,720	91,460	92,160	94,904	105,812
Seizures	2,319	2,062	1,434	4,141	16,349
Other receipts	90,659	102,324	93,753	77,200	42,538
Methylated spirits	93,083	118,077	116,208	96,748	111,846
War Tax					1,550,488
Totals	19,401,472	21,607,003	21,605,074	21,754,706	24,175,379

The quantity of spirits produced during the Fiscal Year was 3,450,012 proof gallons, as compared with 6,116,580 proof gallons produced in the previous Fiscal Year. The raw material taken for use, in the production of spirits, during the Fiscal Year was as follows:—

	Lbs.
Malt	4,863,855
Indian Corn	33,006,091
Rye	6,932,883
Wheat	
Oats	169.130
Barley	
Rice	
Molasses	14,884,460

The transactions of the several distilleries will be found stated in detail in Appendix A (Statement No. 3), pages 74 and 75.

		Proof galls.
There was on April 1, 1915, in process of manufacture		445,351
Manufactured during the Fiscal Year		3,450,012
Returned to distilleries for redistillation—Duty paid	184	
" " " In bond	443,691	
		443,875
Received into distilleries from other sources—Duty paid		5,997
" " " In bond		
Total		4,345,235

This was disposed of as follows:—

	Proof galls.
Placed in warehouse	3,941,105
Fusel oil written off	17,333
Deficiency arising from rectification	4,066
Remaining in process of manufacture March 31, 1916, by actual stock taking	382,731
Total	4,345,235

SPIRITS:—

The following statement shows the warehousing transactions in spirits during the Fiscal Year ended March 31, 1916, and the four preceding Fiscal Years.

Fiscal Years.	1	2	3	4	5	6	7	8	9
	In Warehouse at beginning of year. Including transits.	Warehoused during the year. Ex distillery.	Otherwise Warehoused.	Taken for consumption.	Exported.	Used in Bonded Factories.	Otherwise accounted for.	For redistillation.	In Warehouse at end of year, including transits.
	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.	Pf. Galls.
1911-1912	21,560,925	5,412,398	29,394	4,562,382	298,769	347,714	519,681	604,837	20,669,334
1912-1913	20,669,334	6,993,602	203	4,999,937	333,802	440,826	581,305	639,109	20,668,160
1913-1914	20,668,160	7,488,904	66,510	4,762,618	335,970	451,567	545,437	866,006	21,561,976
1914-1915	21,561,976	6,490,682	45,918	4,021,090	275,911	474,033	459,038	369,168	22,499,336
1915-1916	22,499,336	3,941,105	88,346	3,629,324	808,135	1,160,360	388,160	443,698	20,099,118
Totals	84,460,395	26,385,586	142,025	18,346,027	1,244,452	1,714,140	2,105,461	2,179,128	85,398,806
Average	21,115,099	6,596,396	35,506	4,586,507	311,113	428,535	526,365	544,780	21,349,701

The foreign demand for Canadian distillery products is greater than the average of the last four years, the quantities exported being as follows:—

	Proof galls.
1911-1912	298,769
1912-1913	333,802
1913-1914	335,970
1914-1915	275,911
1915-16	808,135

The following statement shows the entire quantities of spirits upon which duties were collected during the several Fiscal Years recited therein. To accord with the figures shown in Financial Statement No. 12, pages 22 and 23:—

Fiscal Years.	Canadian Spirits.		Imported Spirits used in Bonded Factories.	Total quantities upon which duty was collected.	Memorandum of Revenue accrued, including License Fees.
	Paid duty Ex-distillery.	Paid duty Ex-warehouse.			
	Pf. Gallons.	Pf. Gallons.	Pf. Gallons.	Pf. Gallons.	$
1911-1912	9,317	4,534,785	27,597	4,571,699	8,667,666
1912-1913	2,508	4,999,937		5,002,445	9,474,142
1913-1914	2,001	4,762,618	66,497	4,831,116	9,038,028
1914-1915	6,407	4,021,090	44,690	4,072,187	8,702,981
1915-1916	4,066	3,629,324	85,954	3,719,344	8,701,075
Totals	20,233	18,318,430	138,784	18,477,447	35,882,817
Average	5,058	4,579,608	34,696	4,619,362	8,970,704

MALT :

The following statement shows the transactions in Malt during the Fiscal Year ended March 31, 1916, and the four preceding Fiscal Years :—

Fiscal Years.	1	2	3	4	5	6	7	8	9
	In Warehouse at beginning of year including transits.	Manufactured during the year.	Imported.	Increased by absorption.	Taken for consumption	Exported.	Otherwise accounted for.	In Warehouse at end of year, including transits.	Memorandum of Revenue accrued, including License Fees.
	Lb.	Lb.	Lb.	Lb	Lb.	Lb.	Lb.	Lb.	Lb.
1911-1912	36,389,330	115,793,326	613,382	810,372	114,029,523	294,800	2,647,187	36,634,900	1,716,547
1912-1913	36,634,900	118,673,161	5,001,022	984,235	123,920,607	198,800	2,911,677	34,262,234	1,864,525
1913-1914	34,262,234	133,746,168	10,263,724	736,800	133,794,639	161,820	4,894,662	40,151,805	2,012,301
1914-15	40,151,805	119,917,181	3,363,587	713,406	111,037,743	228,180	3,453,416	49,426,640	2,616,288
Totals	147,438,269	488,123,836	19,241,715	3,244,813	482,782,512	883,600	13,906,942	160,475,579	8,209,661
Average	36,859,567	122,030,959	4,810,429	811,203	120,695,628	220,900	3,476,735	40,118,895	2,052,415
1915-1916	49,426,640	74,053,211	1,379,490	829,448	89,476,590	2,501,130	3,801,448	29,909,621	2,689,300

TOBACCO :

The following statement shows the transactions during the Fiscal Year ended March 31, 1916, and the four preceding Fiscal Years, respectively, in Tobacco, Snuff and Cigarettes :—

Fiscal Years.	1	2	3	4	5	6	7	8	9	10	11
	In Warehouse at beginning of year, including transits.	Manufactured during the year.	Taken for consumption.	Exported.	Otherwise accounted for.	In Warehouse at end of year, including transits.	Raw Leaf taken for consumption.	Canada Twist taken for consumption.	Total Tobacco taken for consumption.	Other Materials taken for consumption.	Duty collected thereon, including License Fees.
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	$
1911-1912.....	927,688	23,557,145	23,749,939	5,790	10,338	718,766	17,491,373	17,098	41,258,410	1,372,144	8,130,776
1912-1913..	718,766	25,703,480	25,267,332	4,519	26,630	1,103,765	19,232,231	17,535	44,537,098	1,615,596	9,192,181
1913-1914.	1,103,765	25,485,348	25,735,773	3,358	3,916	846,066	18,775,803	11,057	44,522,633	1,510,010	9,489,426
1914-1915.	846,065	24,216,866	24,444,380	10,094	44,764	563,694	15,723,329	6,855	40,174,564	1,280,589	9,352,881
Totals.....	3,596,284	98,962,839	99,217,424	23,761	85,648	3,232,291	71,222,736	52,545	170,492,705	5,778,339	36,165,264
Average.....	899,071	24,740,710	24,804,356	5,940	21,412	808,073	17,805,684	13,136	42,623,176	1,444,585	9,041,316
1915-1916	563,694	25,390,672	23,937,785	723,532	380,055	912,994	16,571,311	7,430	40,516,526	1,365,175	10,222,784

CIGARS

The following statement shows the transactions in Cigars during the Fiscal Year ended March 31, 1916, and the four preceding Fiscal Years:—

Fiscal Years	1 In Warehouse at beginning of year, including transits.	2 Manufactured during the year.	3 Assessments to bring production up to Standard.	4 Taken for consumption	5 Exported.	6 Otherwise accounted for	7 In Warehouse at end of year, including transits.	8 Duty collected thereon including License Fees.
	No.	No.	No.	No.	No.	No.	No.	$
1911-1912	25,660,915	248,906,931	128,468	252,718,242	15,000	22,625	21,940,450	517,646
1912-1913	21,940,450	297,762,383	383,922	294,772,933	10,100	22,500	25,281,222	602,269
1913-1914	25,281,222	291,359,173	319,188	288,219,892	7,525	.....	28,762,166	588,935
1914-1915	28,762,166	226,147,875	1,304,626	236,866,542	16,100	30,000	19,302,025	625,905
Totals	101,644,753	1,064,164,365	2,166,204	1,072,577,609	18,725	75,125	95,285,863	2,334,755
Average	25,411,188	266,044,091	541,551	268,144,402	12,181	18,781	23,821,466	583,689
1915-1916	19,302,025	209,628,956	207,672	207,647,808	11,225	624,925	20,854,795	635,158

The revenue derived from goods manufactured in bond during the Fiscal Year ended March 31, 1916, and the four preceding Fiscal Years, was as follows:—

1911-1912	$ 84,720
1912-1913	91,460
1913-1914	92,160
1914-1915	94,904
1915-1916	105,812

ACETIC ACID:

The revenue derived from Acetic Acid during the Fiscal Year ended March 31, 1916, and the four preceding Fiscal Years, was as follows:—

1911-1912	$ 11,300
1912-1913	10,526
1913-1914	11,413
1914-1915	7,255
1915-1916	8,250

INSPECTION OF PETROLEUM:

The quantity of Petroleum and Naphtha inspected during the Fiscal Year was as follows:—

	Galls.
Petroleum	34,775,554.81
Naphtha	29,238,843.98
Total	64,014,398.79

WEIGHTS AND MEASURES, GAS AND ELECTRIC LIGHT:

The usual special reports in relation to these services have been prepared, containing all statistical information.

The aggregate revenue accrued from these services was $228,733.86, the cost of the three services being $305,212.81.

PREVENTION OF ADULTERATION OF FOOD AND AGRICULTURAL FERTILIZERS:

The usual supplementary report in relation to this service will be submitted, containing details of the work done and the report of the chief analyst.

METHYLATED SPIRITS:

The quantity of methylated spirits manufactured during the Fiscal Year was 194,026.45 proof gallons, and the sales 201,420.22 proof gallons. A statement of details appears on pages 66, 67 and 116.

The price of this denatured alcohol is practically the actual cost of manufacture and is as follows:—

Grade No. 1 "Standard" and Grade No. 1 "Benzine."—When consigned to points east of Toronto and west of Quebec, both inclusive, 85 cents per Imperial gallon; when consigned to points beyond Toronto and Quebec, 83 cents per Imperial gallon.

Grade No. 2 "Standard."—85 cents per Imperial gallon.

The increase in price is due to the enhanced cost of Alcohol and Wood Naptha.

APPENDIX A shows the consumption of and revenue derived annually from spirits, tobacco and other goods subject to Excise, and of similar goods subject to duties of Customs, per head of the population of the Dominion.

APPENDIX B contains, as usual, the details concerning illicit stills seized during the year.

APPENDIX C shows the amount of Excise Revenue collected at each Out-Office and under various headings, separately.

I have the honour to be, sir,

Your obedient servant,

J. U. VINCENT,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

APPENDIX A.

TABLE showing the Annual Consumption, per head, of the undermentioned articles, paying Excise and Customs Duties, and Revenue, per head, derived annually.

Years.	Dominion of Canada.									
	Quantity.					Duty.				
	Spirits.	Beer.	Wines.	Tobacco.	Petroleum.	Spirits.	Beer.	Wines.	Tobacco.	Petroleum.
	Galls.	Galls	Galls.	Lbs.	Galls.	$	$	$	$	$
1869	1·124	2·290	·115	1·755	·575	·761	·092	·037	·193	041
1870	1·434	2·163	·195	2·190	1·103	·962	·085	·049	·259	·061
1871	1·578	2·490	·259	2·052	1·591	1·059	·095	·056	·336	·077
1872	1·723	2·774	·257	2·481	1 302	1·160	·108	·670	·422	·076
1873	1·682	3·188	·238	1·999	1·387	1·135	·120	·066	·350	084
1874	1·994	3·012	·288	2·566	1·618	1·363	·119	·086	·442	103
1875	1·394	3·091	·149	1·995	1·589	1·127	·114	069	·428	·098
1876	1·204	2·454	·177	2 316	1·360	1·182	·098	·075	.513	·105
1877	·975	2·322	·096	2·051	1·103	·949	109	·057	·446	·084
1878	·960	2·169	·096	1·976	.....	·927	·147	052	·439	.....
1879	1·131	2·209	·104	1 954	.....	1·005	·125	·057	·449	.....
1880	·715	2·248	·077	1·036	.....	·772	·081	·055	·428	.....
1881	·922	2·293	·099	2 935	.....	·990	·081	·073	·443	.....
1882	1·009	2·747	·129	2·150	.....	1·084	·098	·092	·485	.....
1883	1·090	2·882	·135	2.280	.....	1·186	·103	·097	·473	.....
1884	·988	2·924	·117	2.476	.....	1·074	·104	·082	·365	.....
1885	1·126	2·639	·109	2·623	.....	1·198	·111	074	·393	.....
1886	·711	2·839	·110	2 052	.....	1·007	·091	·074	·502	.....
1887	·746	3·084	·095	2·062	.....	1·045	·100	066	·514	.....
1888	·645	3·247	·094	2·093	.....	·944	110	·066	·509	.....
1889	·776	3·263	·097	1·953	.....	1·107	114	·068	·529	.....
1890	·883	3·360	·104	2·043	.....	1·257	·121	072	539	.....
1891	·745	3·790	·111	2·292	.....	1·094	·137	·080	·590	.....
1892	701	3·516	·101	2·291	.....	1·156	·211	·075	·680	.....
1893	·740	3·485	·094	2 314	.....	1·235	·218	·070	·691	.....
1894	·742	3·722	·089	2·264	.....	1·235	·205	·060	·683	.....
1895	·666	3·471	·090	2·163	.....	1·124	161	·056	·645	.....
1896	·623	3·528	·070	2·120	.....	1·159	·164	·047	·639	.....
1897	·723	3·469	·084	2·248	.....	1·341	·213	·041	·671	.....
1898	·536	3·808	·082	2·358	.....	1 306	126	·041	·615	.....
1899	661	3·995	·086	2·174	.....	1·367	·174	·045	·841	.....
1900	·701	4·364	·085	2·300	.....	1·455	·185	·044	·853	.....
1901	·757	4·680	·099	2·375	.....	1·574	·195	·047	·864	.....
1902	786	5 035	·090	2·371	.....	1 631	·211	·048	·902	.....
1903	·848	4 592	·094	2 483	.....	1·766	·200	049	·967	.....
1904	·917	4 739	·092	2·664	.....	1 913	·217	·049	1·005	.....
1905	·895	5·123	·093	2 768	.....	1·898	·214	·049	1·036	.....
1906	.898	5·484	·095	2·898	.....	1.879	·238	·052	1·100	.....
*1907 (nine months)	·977	5·765	·095	3·048	.....	2·035	·257	·054	1·317	.....
1908	·939	6·146	·102	3·066	.....	1·965	·268	·057	1·194	.....
1909	·860	5·708	·091	3 105	.....	1 794	·241	·050	1·101	.....
1910	·883	5·713	·105	3·183	.....	1·843	242	·057	1·059	.....
1911	·948	5.999	·114	3·323	.....	1·988	·257	·059	1·157	.....
1912	1·030	6·598	·114	3 679	.....	2·170	·288	·063	1·336	.....
1913	1.112	7·005	·131	3.818	.....	2 340	·320	·076	1·462	.....
1914	1·061	7·200	·124	3.711	.....	2 249	·328	·069	1·438	.....
1915	·872	6·071	·095	3·427	.....	2·086	·379	051	1·361	.....
1916	.745	4·950	·062	3·329	.....	1·951	362	·033	1·454	.....
Average	·962	3.969	.117	2·460	.....	1·393	·174	·061	.732	.....

APPENDIX B.

STATEMENT of seizures of illicit Manufactures for the year ended March 31, 1916.

Division.	Number.	Date.	Names.	Residence.	Schedule Value.	Remarks.
		1915.			$ cts.	
Perth	14	April 1	John Flynn	Tnmmns	11 00	Fine $100, imposed and paid.
Toronto	429	Oct. 5	I. D. Corbier	Mantoulin	" 100 " "	
Joliette	144	April 22	N. Meunier	Pincourt	40 00 " 100 " "	
		1916.				
"	146	Feb. 1	F. Lapointe	"	8 00	No action taken.
		1915.				
Montreal	1298	May 1	B. J. Boyer	Lachine Road	71 00	Fine $100, imposed and paid.
"	1303	" 26	M. Klein	Montreal	10 00 " 100 " "	
"	1306	June 11	J. Krams	"	29 50	Serving three months in jail.
"	1307	" 11	D. Cousineau	"	2 00	Fine $100, imposed and paid.
"	1308	" 19	P. Geoffrion	"	473 00 " 500 " "	
"	1310	July 3	A. Pelletier alias A. Tanguay	"	255 00 " 100 " "	
"	1311	" 3	A. Desloges, R. Dufresne and C. Gauthier	Vaudreuil	146 60 " 400 " "	
"	1312	June 22	J. T. Dorais	Montreal	427 00	Action pending.
"	1316	July 7	A. Cohen	St. Pierre	21 40	Fine $100, imposed and paid.
"	1317	" 17	A. Bergeron	Montreal	234 00 " 100 " "	
"	1318	" 17	J. Gresdinan	Ste. Rose	151 75 " 200 " "	
"	1325	Aug. 27	M. Beaudoin, J. Saurid and L. Mailloux	Montreal	62 50 " 200 " "	
"	1328	Sept. 6	J. Chartrand	"	23 60 " 100 " "	
"	1329	" 19	A. Pantaleo	"	10 00 " 100 " "	
"	1331	" 13	M. Venderpomik	"	50 00 " 50 " "	
"	1332	" 23	J. Gresdinan and A. Bergeron	Ste. Rose	30 70	Action dismissed.
"	1336	" 27	L. Bartalucci	Montreal	6 50	With Justice Department.
"	1339	Oct. 2	M. Shadra	"	109 00	Fine $200, imposed and paid.
"	1340	" 29	Desrosiers frères	Maisonneuve	7 64 " 100 " "	
"	1342	Nov. 8	C. Corretta	Iberville	115 50 " 50 " "	
"	1343	" 8	H. Raymond	Montreal	144 37 " 100 " "	
"	1344	" 26	F. Lefebvre	"	14 50 " 100 " "	
"	1357	"	A. Petit	Chambly Basin	" 150 " "	
"	1367	Dec. 29	E. Desrosiers and P. Charlebois	Montreal	100 00 " 300 " "	

APPENDIX B.—*Concluded.*

SUMMARY of seizures of illicit Manufactures for the year ended March 31, 1916—*Concluded.*

Divisions.	Number	Date.	Names.	Residence.	Schedule Value.	Remarks.
		1916.			$ cts.	
Montreal	1350	Jan. 8.	S. Biagis	Montreal	30 00	Serving one month in jail.
"	1351	" 10.	A. Tolchimsky	Lachine Road	20 00	Fine $200, imposed and paid.
"	1352	" 14.	J. Leclere and B. J. Boyer	Verdun	125 00	" 100 " "
"	1354	" 17.	S. Choenebolsky and J. Greenfield	Montreal	100 00	" 200 " "
"	1355	" 19.	A. Millette	"	9 60	" 50 " "
"	1361	Feb. 3.	C. Dupont	"	5 10	Action pending.
"	1362	" 18.	A. Proulx and E. Gaudet	"	117 70	Fine $200, imposed and paid.
"	1363	" 23	Chas. Lippins	"	10 00	" 100 " "
"	1366	Mar. 1.	A Paquette	"	18 80	" 100 " "
"	1367	" 3.	O. Bélanger	"	64 00	Action pending.
"	1373	" 25.	A. Quintal	"	1 00	With Justice Department.
		1915.				
Quebec	651	Oct. 28.	E. Daigle	St. Damase	10 00	Serving six months in jail.
Sherbrooke	219	May 31.	W. Paré			" two " "
Three Rivers	117	Sept. 29.	A. Rousseau		8 00	Defendant not yet located.
Halifax	190	Nov. 24.	W. and M. Comeau	Digby	60 00	Fine $200. imposed and paid.
Pictou	120	Dec. 12.	Alex. Beaton	Mabou Coal Mines	5 00	Action pending.
		1916.				
"	121	Jan. 7.	Alex. Beaton	" "	20 00	Action pending.
"	122	"	A. Cameron		20 00	Defendant left the country.
		1915.				
Calgary	4	Dec. 18.	A. Busse	South Edmonton		Fine $150, imposed and paid.

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX C.

STATEMENT showing the amount of Excise and other Revenue collected at each of the undermentioned Out-Offices during the year ended March 31, 1916.

Division.	Out Offices.	Licenses.	Spirits.	Malt Liquor.	Malt.	Tobacco.	Cigars.	Manufactures in Bond.	Other Receipts.	Electric Light Inspection Fees.	War Tax.	Totals.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Belleville	Deseronto											
	Picton											
	Trenton	50 00	7,894 86									7,944 86
Brantford	Delhi											
	Ingersoll											
	Norwich	50 00						2,749 40	1,074 06			3,873 46
	Paris											
	Port Dover											
	Port Rowan											
	Simcoe	100 00	12,254 96				56 85		2,395 73			14,807 54
	St. George											
	Tavistock											
	Waterford											
	Woodstock	50 00										
Guelph	Berlin	300 00	40,343 47		27,582 00	1,205 40	2,096 92		5,315 07			5,639 12
	Galt	150 00			2,514 15		88 35		2,150 73		2,818 81	76,497 33
	New Hamburg	50 00			4,828 68				506 69			3,259 19
	Preston	150 00			5,136 00				34 46			4,912 54
	Waterloo	550 00	273,998 93		83,976 36	607 04	1,369 50		1,065 21		1,634 24	7,985 45
									1,831 75			
									1,650 00		816 20	363,939 78
Hamilton	Dundas	200 00			4,335 39							4,535 39
Kingston	Napanee								344 96		552 85	897 81
London	Petrolia	52 00	8,853 63						802 87			9,408 50
	Aylmer								1,158 47			1,158 47
	Sarnia	291 00	36,589 92			197 68	305 93		2,691 67			39,989 20
	Glencoe								299 08			299 08
	St. Thomas	200 00			9,240 00	1,928 28	2,695 95		1,438 81			21,503 04
	Strathroy								1,248 20			1,248 20
Ottawa	Parkingham	66 00	7,073 65								322 51	7,426 19
	Ville Marie											
Owen Sound	Collingwood										849 30	849 30
	Kincardine										331 17	331 17
	Meaford										168 70	168 70

APPENDIX C—*Continued.*

STATEMENT showing the amount of Excise and other Revenue collected at each of the undermentioned Out-offices during the year ended March 31, 1916—*Continued.*

Divisions.	Out-Offices.	Licenses.	Spirits.	Malt Liquor.	Malt.	Tobacco.	Cigars.	Manufactures in Bond.	Other Receipts.	Electric Light Inspection Fees.	War Tax.	Totals.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Owen Sound	Newstadt	100 00			8,362 80						47 60	8,510 40
	Walkerton	100 00			6,732 00				420 39		707 51	7,959 90
	Wiarton										256 10	256 10
Perth	Arnprior	50 00	1,550 52								330 90	1,931 42
	Eganville	50 00	11,825 41								45 95	11,921 36
	Haileybury											
	Mattawa	50 00	3,219 70								50 76	3,320 46
	New Liskeard	50 00	13,953 76								490 00	14,493 76
	North Bay	100 00	16,982 95								1,020 22	18,103 17
	North Cobalt	50 00				38 08	43 51				2,450 15	2,581 74
	Pembroke	125 00	12,456 60			308 18	48 15				427 25	13,365 18
	Renfrew	275 00							202 60		81 00	558 60
	Sturgeon Falls	50 00	13,352 68								402 15	13,804 83
	Sudbury	500 00	70,066 42		55,890 00				9 00		2,118 85	128,384 27
Peterborough	Cobourg	50 00	3,834 29								1,883 09	5,767 38
	Lindsay										1,444 25	1,444 25
	Port Hope	75 00						202 99			1,738 80	2,016 79
Port Arthur	Dryden	50 00	1,586 5						155 08			1,791 66
	Fort Frances	50 00	4,556 25						895 92			5,502 17
	Fort William	150 00	27,462 19		13,878 00				2,090 25			43,580 44
	Kenora	150 00	25,593 09		1,873 20	36 12	76 24		889 10			28,617 75
	Rainy River	50 00	5,051 61						268 96			5,370 57
	Wabigoon											
Prescott	Brockville	200 00	6,779 46		3,600 00	857 35	1,283 40		1,731 95			14,452 16
	Cornwall	50 00			53,249 10				1,816 98			55,116 08
St. Catharines	Beamsville											
	Crystal Beach											
	Dunnville											
	Fort Erie								50 00			50 00
	Grimsby											
	Humberstone	100 00				155 68	559 25					794 93
	Merritton											
	Niagara Falls	75 00				277 20	586 35		3,445 36			4,383 91

	Niagara-on-the-Lake											
	Port Colborne	50 00			13,827 90							13,877 90
	Port Dalhousie											
	Queenstown											
	Thorold								196 00			196 00
	Welland	25 00					105 00		195 00			325 00
	Stamford								646 35			646 35
	Fort Hill								90 50			90 50
Stratford	Goderich	50 00	153 28						1,303 22			1,506 50
	Listowell	100 00			3,356 14	1,734 04	1,752 30		1,486 62			8,429 10
	Palmerston						166 65					
	St. Mary's	50 00				60 76			1,090 30			1,367 71
	Seaforth								680 57			680 57
	Mitchell								373 15			373 15
	Clinton								735 40			735 40
	Brigham								422 13			422 13
Toronto	Barrie								4 00		3,277 14	3,281 14
	Hornby											
	Orillia	50 00										50 00
	Sault Ste. Marie	300 00	32,637 27		17,355 63	459 20	664 35		2 00		2,823 96	54,242 41
	Wiarton	50 00	4,341 17									4,391 17
Windsor	Chatham	250 00	40,330 78			1,557 86	824 90		2 10		2,615 81	45,781 45
	Kingsville	100 00				13,691 50					267 90	14,059 40
	Leamington	125 00				1,541 17	199 20	5,617 52	600 00		381 59	8,464 48
	Wallaceburg	50 00				356 30	212 18				500 17	1,118 65
Joliette	Berthierville	250 00	11,313 83						13,376 50			24,940 33
	L'Assomption											
	L'Epiphanie	200 00				1,500 80 532 20	7,041 69					9,274 69
	St. Alexis	50 00				1,505 50						1,555 50
	St. Esprit											
	St. Jacques	150 00				214 50						364 50
	Ste. Elisabeth	25 00										25 00
	St. Lin	100 00				4,339 32	1,915 50					6,354 82
	St. Roch	50 00				550 00						600 00
	Rawdon	50 00					06					50 06
Montreal	Chambly Basin											
	Lachine											
	St. Jerome	100 00	14,163 85								592 10	15,155 95
	St. Laurent											
	Ste. Therese											
	Valleyfield	150 00	76 971 53		8,100 00						1,528 34	86,749 87
Quebec	Chicoutimi											
	Fraserville											
	Gaspe	50 00	1,804 68								116 00	1,970 68
	Levis	150 00	54,468 17			21,226 10	10,053 95				1,109 61	87,107 81
	Rimouski											
St. Hyacinthe	Farnham											
	L'Ange Gardien											

APPENDIX C—*Continued.*

STATEMENT showing the amount of Excise and other Revenue collected at each of the undermentioned Out-Offices during the year ended March 31, 1916—*Concluded.*

Divisions.	Out-Offices.	Licenses.	Spirits.	Malt Liquor.	Malt.	Tobacco.	Cigars.	Manufactures in Bond.	Other Receipts.	Electric Light Inspection Fees.	War Tax.	Totals.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
St. Hyacinthe	St. Cesaire											
	St. John	250 00	12,631 85			328 75 88 55	250 64		2 00		779 38	14,331 17
	St. Ours											
	Sorel	250 00	26,181 41			202 86	207 18		70		683 19	27,525 34
Sherbrooke	Victoriaville	175 00	28,039 33			64 40	225 90		340 65		361 86	29,207 14
Three Rivers	Granby	200 00				491,388 55	7,860 39		1,425 97			500,874 91
	Grand Mère											
	La Tuque											
	Louiseville	50 00	6,125 97									6,175 97
	St. Boniface	50 00				7,400 00						7,450 00
	St. Tite											
	Baie Shawinigan	50 00					208 50					258 50
	Notre-D. de Charette	50 00				264 15						314 15
	Andover											
St. John	Bathurst											
	Campbellton											
	Campobello											
	Chatham											
	Clair											
	Dalhousie											
	Edmunston	50 00	3,245 23								336 09	3,631 32
	Fredericton											
	Grand Falls											
	Moncton											
	Newcastle											
	Shediac											
	Sackville											
	St. Stephens	50 00	124 08						73 81		960 07	1,207 96
	St. Andrews											
	Sussex											
	Woodstock											
Halifax	Amherst								369 08		1,303 95	1,673 03

	Lunenburg										55 06	55 06
	Parrsborough										157 50	157 50
	Truro	50 00				3,761 70					1,339 95	5,151 65
	Weymouth										228 88	228 88
	Windsor										624 95	624 95
	Yarmouth	50 00				230 44	687 53				471 90	1,439 87
Pictou	Antigonish										319 13	319 13
	New Glasgow	25 00									1,323 40	1,348 40
	North Sydney	50 00	18,905 62								703 59	19,659 21
	Sydney	200 00	16,615 78								1,267 68	18,083 46
Charlottetown	Georgetown											
	Souris											
	Summerside											
	Alberton											
	Cardigan											
	Crapaud											
	Murray Harbour											
	Montague											
	St. Peters											
	Viguish											
Winnipeg	Brandon	425 00	56,143 06		18,162 60	1,212 40	1,225 72				5,339 33	82,558 11
	Beausejour										140 00	140 00
	Dauphin	100 00	19,997 86								2,228 69	22,326 55
	Emerson										5 00	5 00
	Gretna										12 00	12 00
	Morden	100 00	6,862 67								442 84	7,405 51
	Portage la Prairie	50 00				49 98	30 15				1,325 45	1,455 58
	Selkirk										71 35	71 35
	Transcona										20 00	20 00
	Virden	50 00	9,556 82								746 16	10,352 98
	York Factory											
Calgary	Blairmore	100 00	3,377 15			43 00					45 70	3,565 85
	Camrose	50 00	3,909 92								597 45	4,557 37
	Edmonton	950 00	142,134 08		25,971 00	9,239 18	3,877 50	2,911 10	1,434 75		12,727 22	199,244 83
	Fort Saskatchewan											
	High River	50 00	1,315 89								559 55	1,925 44
	Lacombe	50 00	8,726 88								815 08	9,591 96
	Lethbridge	200 00	24,855 78	7,115 10	23,100 00	521 64	410 55				3,251 95	59,455 02
	Medicine Hat	150 00	10,102 51		3,885 00	373 80	377 25				1,186 36	16,074 92
	Pincher Creek											
	Red Deer	50 00	1,786 41									1,836 41
	Stettler	150 00	721 54			14,891 01	5,973 92				504 22	22,240 72
	Strathcona											
	Taber	50 00	2,536 66								47 10	2,633 76
	Vermilion	50 00	2,174 49								519 70	2,744 19
	Wetaskiwin	50 00	12,440 19								39 50	12,579 69
Moose Jaw	Estevan	100 00	2,681 63			27 72	46 50		2 32		875 70	3,733 87
	Hull Lake		27 67								61 00	88 67
	Maple Creek											

APPENDIX C—*Concluded.*

STATEMENT showing the amount of Excise and other Revenue collected at each of the undermentioned Out-Offices during the year ended March 31, 1916—*Concluded.*

Divisions.	Out-Offices.	Licenses.	Spirits.	Malt Liquor.	Malt.	Tobacco.	Cigars.	Manufactures in Bond.	Other Receipts.	Electric Light Inspection Fees.	War Tax.	Totals.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Moose Jaw—*Con.*	Melville	50 00	1,151 51								170 50	1,372 01
	North Battleford								24		30 00	30 24
	Prince Albert	150 00	5,660 63		4,675 20						2,253 05	12,138 88
	Regina	375 00	263,162 86		4,800 00	174 16	65 33		2 76		10,596 69	279,176 80
	Rosthern	50 00	2,221 19								931 20	3,202 39
	Saskatoon	200 00	5,156 94	2,756 25	5,100 00	225 68	155 70		39 70		11,931 51	25,565 78
	Swift Current	50 00	1,653 32						3 30		1,368 75	3,075 37
	Weyburn	100 00	1,290 42			218 40	96 98		3 60		1,178 95	2,888 35
Vancouver	Anaconda											
	Cranbrook	200 00	12,249 55		750 00						684 75	13,884 30
	Fernie	150 00	10,633 44		15,744 90	107 80	114 00				696 54	27,446 68
	Fort George											
	Golden	50 00	1,847 58								202 92	2,100 50
	Grand Forks	150 00			180 00	71 12	109 14				191 58	701 84
	Greenwood										325 96	325 96
	Kamloops	200 00	1,502 53		2,722 80	940 66	531 75				1,314 40	7,212 14
	Kelowna											
	Merritt	50 00			400 20						204 50	654 70
	Michel	100 00	5,447 51		5,745 00							11,292 51
	Moyie City											
	Nelson	200 00	27,830 89		4,980 00	504 28	427 50		63 99		1,490 92	35,497 58
	New Westminster	325 00	2,198 54	1,737 00	9,444 78	4,034 52	1,954 50				1,792 25	21,486 59
	Phoenix	50 00			3,604 50						238 96	3,893 46
	Prince Rupert	100 00	3,918 87			184 24	105 83		8 30		1,996 05	6,313 29
	Princeton	50 00			840 00						39 70	929 70
	Revelstoke	200 00	6,037 27		2,265 30	85 68	186 75				753 59	9,528 59
	Rossland	150 00	6,069 57		3,523 50	930 72	358 20		8 59		278 50	11,319 08
	Trail	50 00			6,000 00						502 15	6,552 15
	Vernon	162 50	5,715 01		1,178 10	92 98	6 85				1,161 20	8,316 64
Victoria	Cumberland	50 00									270 93	320 93
	Ladysmith											

	Nanaimo	475 00	5,652 01	.....	10,284 00	1,888 18	920 40	.....	.....	.....	2,268 24	21,487 83
	Sidney	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dawson	Yukon	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
		14,940 50	1,630,965 62	11,608 35	477,193 63	597,426 84	58,814 89	11,481 01	64,009 95	.....	119,552 70	2,985,993 49

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

FINANCIAL STATEMENTS, 1915-1916

DR. No. 1.—GENERAL REVENUES ACCOUNT FOR THE YEAR ENDED MARCH 31, 1916. CR.

Amount of Refunds deducted.	Amounts deposited to the Credit of Receiver General.	Balances due March 31, 1916.	Balances of Stamps on hand March 31, 1916.	Totals.	Services	Revenues of previous year not collected April 1, 1915	Revenues accured 1915-16.	Balances of Stamps on hand March 31, 1916.	Totals.
$ cts	$ cts	$ cts	$ cts	$ cts		$ cts.	$ cts.	$ cts	$ cts.
223,543 87	22,359,540 48	19,831 10		22,570,371 59	Excise and Seizures, per Statement No. 3	19,615 51	22,550,756 08		22,570,371 59
7 00	112,249 11	40 80		112,280 91	Weight and Measures, per Statement No. 18 A.	144 10	112,136 81		112,280 91
		92 72		92 72	" " " 18 B	92 72			92 72
2 00	46,034 80			46,034 80	Gas Inspection, per Statement No. 20		46,034 80		46,034 80
	70,562 25			70,562 25	Electric Light Inspection per Statement No. 22		70,562 25		70,562 25
		45 04		45 04	Bill Stamps, per Statement No. 7	45 04			45 04
	11,520 15		6,726 85	18,247 00	Law Stamps, per Statement No. 8		11,520 15	6,726 85	18,247 00
	8,490 36			8,490 36	Sundry Minor Revenues, per Statement No. 9		8,490 36		8,490 36
11,761 20	1,550,488 35			1,550,488 35	War Tax Revenue, per Statement No. 3 A.		1,550,488 35		1,550,488 35
	111,846 35			111,846 35	Methylated Spirits, per Statement No. 25		111,846 35		111,846 35
	1,989 00	1,883 62		2,872 62	Ferry Licenses Revenue, per Statement No. 11	1,883 62	989 00		2,872 62
235,317 26	24,462,824 15	21,843 28	6,726 85	24,491,331 99		21,780 99	24,462,824 15	6,726 85	24,491,331 99
	235,317 26			235,317 26	Less—Refunds per Statement No 15		235,317 26		235,3 26
	24,227,506 89			24,256,014 73	Totals		24,227,506 89		24,256,0

INLAND REVENUE DEPARTMENT,
OTTAWA, JULY 1, 1916.

J. U. VINCENT,
Deputy Minister.

DR. No. 2.—GENERAL EXPENDITURES FOR

Balances due to Collectors, etc., April 1, 1915.	Expenditures Authorized by the Department			Balances due by Collectors, etc., March 31, 1916.	Totals.	Services.
	Salaries.	Contingencies.	Seizures.			
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
49 08	491,336 90	242,342 57	1,313 81	343 98	735,386 34	Excise and Seizures, per Statement No. 4
.. ..	.....	.....	7,913 77	.....	7,913 77	Excise Seizures distributed per Appendix B, Statement No. 2
.....	2,911 56	14,331 67	.....	.....	17,243 23	Preventive Service, Statement No. 5
.. ..	3,836 72	39,479 09	....	..... .	43,315 81	Adulteration of Food, per Statement No. 6, and Appendix B, Statement No. 4
.. ..	....	1,405 70	.....	.....	1,405 70	Sundry Minor Expenditures, per Statement No. 10
.. ..	130,404 28	19,797 05	.....	16 66	150,217 99	Departmental Expenditures, per Statement No. 16
.....	96,428 73	84,685 13	. ...	3 70	181,117 56	Weights and Measures, per Statement No. 19A
.....	48,005 56	18,250 32	.....	212 88	66,468 46	Gas Inspection, per Statement No. 21
.....	21,893 60	35,952 47	. .. .	.....	57,846 07	Electric Light Inspection, per Statement No. 23
.....	....	99,460 41	.. ..	... .	99,460 41	Methylated Spirits, per Statement No. 25
.....	.....	54,014 06	.....	.....	54,014 06	War Tax, per Statement No. 4 A
49 08	794,817 35	609,718 17	9,227 58	577 22	1,414,389 40	....Totals

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

THE YEAR ENDED MARCH 31, 1916. CR.

Balances due by Collectors, etc., March 31, 1915.	Amounts disbursed by the Receiver General, on requisition of the Department.	Deductions from Salaries.					Balances due to Collectors, etc., March 31, 1916.	Totals.
		Superannuation.	Insurance.	Retirement.	Guarantee	Annuities.		
$ cts	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts	$ cts	$ cts.
343 98	711,501 10	3,343 27	3,530 41	15,120 43	1,357 67	140 40	49 08	735,386 34
....	7,913 77	.....	.....	.....	....	....	.....	7,913 77
....	17,239 45	....	....	....	3 78	....	.. ..	17,243 23
.....	43,285 60	13 92	.....	....	16 29	.....	... .	43,315 81
.....	1,405 70	....	.....	.....	.....	.. ..	.... ..	1,405 70
16 66	144,380 22	491 41	754 49	4,575 21	.. ..	.....	....	150,217 99
3 70	180,483 08	162 27	254 91	....	213 60	.....	.....	181,117 56
212 88	66,027 79	15 72	.....	90 00	122 07	.....	.. ..	66,468 46
.....	57,774 52	....	....	9 96	58 89	.....	2 70	57,846 07
.....	99,460 41	.... ..	....	.....	.. ....	. ....	.. .	99,460 41
.....	54,014 06	....	.... ..	....	.....	.....	....	54,014 06
577 22	1,383,485 70	4,026 59	4,539 81	19,795 60	1,772 30	140 40	51 78	1,414,389 40

J. U. VINCENT,
Deputy Minister.

EXCISE

No. 3.—Collection Divisions

Balances due April 1, 1915.	Amount accrued during Year, including License Fees.							
	Spirits.	Malt Liquor.	Malt.	Tobacco.	Cigars.	Acetic Acid.	Bonded Manufactures.	Seizures.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
.....	172,277 15	50 00	34,253 30	1,000 08	474 80	.. ..	.....	....
112 61	41,185 73	50 00	8,440 91	7,911 12	5,690 68	.....	2,799 40	.....
....	342,961 26	350 00	142,800 73	2,390 36	4,352 52	.....	... .	.....
....	378,720 53	100 00	111,683 99	816,913 46	49,618 71	50 00	6,619 57	160 00
... .	74,573 38	100 00	9,211 44	10,690 96	6,892 94	.....	3,681 09	....
....	87,256 31	200 00	124,044 61	149,896 88	91,076 10	.....	.....	305 00
....	290,658 30	100 00	25,977 21	351 80	598 18	... .	911 85	....
....	48 31	200 00	17,347 73	5,640 22	2,922 69	.....	3,308 25	....
.....	195,933 01	50 00	55,890 00	355 26	191 66	....	300 00	100 00
.. ..	3,947 28	50 00	11,676 20	584 36	457 75	....	50 00	.....
.....	107,792 00	150 00	26,269 20	36 12	126 24	....	.....	.....
....	201,721 44	150 00	65,139 98	947 36	1,383 40	.. ..	300 00	55 00
....	18,980 02	100 00	40,107 96	1,808 38	3,645 35	.....	.....	.....
.....	33,527 10	100 00	8,206 65	6,256 76	3,768 96	.....	50 00	....
....	1,028,315 17	550 00	418,933 70	103,118 98	49,229 23	... .	41,217 92	100 00
.....	473,665 01	100 00	62,137 01	22,881 71	5,860 35	.....	6,167 52	.....
522 89	.....	... .	.....	.....	....	.....	....	.....
635 50	3,451,562 00	2,400 00	1,162,180 62	1,139,783 81	225,289 56	50 00	65,405 60	720 00
1,036 08	82,001 13	....	....	12,201 51	14,684 23	....	.....	266 09
524 89	2,278,842 06	27,499 95	747,018 71	7,905,259 62	300,294 62	8,200 14	11,161 15	7,677 46
....	481,384 90	150 00	55,475 91	528,959 74	12,229 36	.....	3,520 90	105 75
.....	136,667 72	50 00	17,230 65	506,285 19	17,837 41	.....	300 00	.....
.....	164,651 73	.....	2,390 40	31,539 62	22,364 83	.....	209 00	924 19
54 27	65,216 27	50 00	4,938 00	9,535 73	2,005 76	.. ..	..... .	.. ..
3,295 57	.. ..	.....	....	.....	.....	. ...	.....	. . ..
4,916 81	3,208,763 81	27,749 95	827,053 67	8,993,781 41	369,416 21	8,200 14	15,182 05	8,973 49
....	184,230 75	100 00	35,474 07	2,159 92	6,584 20	.....	2,262 78	160 35
1,442 62	.....	....	....	... .	.....	... .	....	.....
1,442 62	184,230 75	100 00	35,474 07	2,159 92	6,584 20	.....	2,262 78	160 35
... ...	47,717 21	150 00	95,171 97	5,315 32	2,507 88	.....	.....	213 70
.. ..	35,521 40	.....	....	2,040 19	592 70	... .	.....	....
5,860 50	... .	... .	.. ..	... .	.....	.....	.....	.....
5,860 50	83,238 61	150 00	95,171 97	7,355 51	3,100 58	.....	.....	213 70
.....	37 31	.....	.....	24,383 18	.....	.....	.....	.....
.. . .	795,650 38	9,347 05	186,206 74	6,369 56	7,277 21	. .....	17,984 14	150 00
5,563 99	327,718 02	5,797 10	175,453 79	24,678 24	11,739 92	. .. ...	3,246 22	75 00
. .. .	287,641 21	2,956 25	20,731 20	648 48	606 53	.....	. ... ..	.....

SESSIONAL PAPER No. 12

1915-16.

IN ACCOUNT WITH REVENUES.

Sundries.	Total Duties accrued.	Total Debits.	Divisions.	Deposited to Credit of Receiver General.	Balances due March 31, 1916.	Total Credits.
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.
763 40	208,818 73	208,818 73	Belleville	208,818 23	50	208,818 73
712 49	66,790 33	66,902 94	Brantford	66,790 33	112 61	66,902 94
1,844 80	494,699 67	494,699 67	Guelph	491,699 67		494,699 67
2,810 60	1,366,676 86	1,366,676 86	Hamilton	1,366,676 86		1,366,676 86
935 08	106,084 89	106,084 89	Kingston	106,084 89		106,084 89
437 25	453,216 15	453,216 15	London	453,216 15		453,216 15
454 00	319,051 34	319,051 34	Ottawa	319,051 34		319,051 34
602 00	30,069 20	30,069 20	Owen Sound	30,069 20		30,069 20
1,199 40	254,010 33	254,010 33	Perth	254,010 33		254,010 33
166 30	16,931 89	16,931 89	Peterborough	16,931 89		16,931 89
400 00	134,773 56	134,773 56	Port Arthur	134,773 56		134,773 56
991 40	270,688 58	270,688 58	Prescott	270,688 58		270,688 58
80 50	64,722 21	64,722 21	St. Catharines	64,722 21		64,722 21
131 70	52,101 17	52,101 17	Stratford	52,101 17		52,101 17
17,373 54	1,658,838 54	1,658,838 54	Toronto	1,658,838 54		1,658,838 54
17,861 51	588,675 11	588,675 11	Windsor	588,675 11		588,675 11
		522 89	Suspense Account		522 89	522 89
46,756 97	6,086,148 56	6,086,784 06	*Ontario*	6,086,148 06	636 00	6,086,784 06
13,015 00	122,167 96	123,204 04	Joliette	122,167 96	1,036 08	123,204 04
5,619 39	11,291,573 10	11,292,097 99	Montreal	11,291,358 01	739 98	11,292,097 99
1,358 20	1,083,184 76	1,083,184 76	Quebec	1,083,184 76		1,083,184 76
377 60	678,747 97	678,747 97	Sherbrooke	678,747 97		678,747 97
965 90	223,036 67	223,036 67	St. Hyacinthe	223,036 67		223,036 67
250 09	81,995 76	82,050 03	Three Rivers	81,995 76	54 27	82,050 03
		3,295 57	Suspense Account		3,295 57	3,295 57
21,585 49	13,480,706 22	13,485,617 03	*Quebec*	13,480,491 13	5,125 90	13,485,617 03
1,231 80	232,203 87	232,203 87	St. John	232,203 87		232,203 87
		1,442 62	Suspense Account		1,442 62	1,442 62
1,231 80	232,203 87	233,646 49	*New Brunswick*	232,203 87	1,442 62	233,646 49
306 20	151,382 28	151,382 28	Halifax	151,382 28		151,382 28
275 00	38,429 29	38,429 29	Pictou	38,429 29		38,429 29
		5,860 50	Suspense Account		5,860 50	5,860 50
581 20	189,811 57	195,672 07	*Nova Scotia*	189,811 57	5,860 50	195,672 07
	24,420 49	24,420 49	*Charlottetown, P. E. I.*	24,420 49		24,420 49
3,188 08	1,026,104 16	1,026,104 16	*Winnipeg, Manitoba*	1,026,104 16		1,026,104 16
3,154 70	551,862 99	557,420 98	*Calgary, Alberta*	551,862 99	5,557 99	557,420 98
878 80	313,472 47	313,462 47	*Moosomin, Saskatchewan*	313,462 47		313,462 47

EXCISE

No. 3.—Collection Divisions

Balances due April 1, 1915.	Amount accrued during Year, including License Fees.							
	Spirits.	Malt Liquor.	Malt.	Tobacco.	Cigars.	Acetic Acid.	Bonded Manufactures.	Seizures.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1,202 09	288,245 09	44,877 95	119,665 47	18,396 47	7,3 8 17	.... .	1,731 45	56 85
.....	67,817 73	4,351 15	65,499 37	14,198 70	2,805 45	.....	.. ..	.... . .
1,202 09	356,062 82	49,229 10	185,164 84	32,595 17	10,143 62	.....	1,731 45	56 85
.....	6,169 77	50 00	1,862 73	97 50	.....	.....	... ...	....
19,615 51	8,701,074 68	97,779 45	2,689,299 63	10,222,783 78	635,157 83	8,250 14	105,812 24	10,349 39
.....	38,533 81	.....	179,798 90	3,097 07	107 99	.....	....	.....
.....	8,662,540 87	97,779 45	2,509,500 73	10,219,686 71	635,049 83	8,250 14	105,812 24	10,349 39

Inland Revenue Department,
Ottawa, July 1, 1916.

SESSIONAL PAPER No. 12

1915-16.

IN ACCOUNT WITH REVENUES—*Concluded.*

Sundries.	Total Duties accrued.	Total Debits.	Divisions.	Deposited to Credit of Receiver General.	Balances due March 31, 1916.	Total Credits.
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.
2,342 10	482,653 55	483,855 64	Vancouver	482,653 55	1,202 09	483,855 64
429 80	155,102 20	155,102 20	Victoria	155,102 20		155,102 20
2,771 90	637,755 75	638,957 84	*British Columbia*	637,755 75	1,202 09	638,957 84
100 00	8,280 00	8,280 00	*Yukon*	8,280 00		8,280 00
80,248 94	22,550,756 08	22,570,371 59	Totals	22,550,510 49	19,831 10	22,570,371 59
2,008 10	223,545 87		Less refunds as per statements No. 15			
78,240 84	22,327,210 21		Net Revenue			

J. U. VINCENT,
Deputy Minister.

WAR TAX REVENUE, 1915-16.

No. 3 A.—Stamps, Embossing cheques, Transportation tickets, Telegrams, etc.

Divisions.	Amount of stamps sold by Collectors.	Transportation tickets, Telegrams, Embossing cheques, etc.	Fines.	Total Deposited to the credit of Receiver General.
	$ cts.	$ cts.	$ cts.	$ cts.
Belleville	4,666 70			
Brandford	15,762 84			
Guelph	11,399 32			
Hamilton	27,501 37			
Kingston	4,683 43			
London	24,000 88			
Ottawa	26,528 74			
Owen Sound	4,453 18			
Perth	10,388 69			
Peterborough	9,180 39			
Port Arthur	7,965 92			
Prescott	3,853 89			
St. Catharines	13,192 80			
Stratford	7,638 39			
Toronto	158,428 46			
Windsor	24,815 24			
Ontario	354,460 24	78,848 01	438 00	433,746 25
Joliette	1,968 32			
Montreal	89,089 78			
Quebec	21,132 86			
St. Hyacinthe	3,861 48			
Sherbrooke	8,090 06			
Three Rivers	1,982 45			
Quebec	126,124 95	599,270 95	1,000 00	726,395 90
St. John New Brunswick	25,848 78	2,494 85		28,343 63
Halifax	22,368 56			
Pictou	5,802 60			
Nova Scotia	28,171 16	5,909 58		34,080 74
Charlottown Prince Edward Island	1,625 51	3,821 70		5,447 21
Winnipeg Manitoba	69,308 43	9,669 60	300 00	79,278 03
Calgary Alberta	42,847 91	742 42		43,590 33
Moosejaw Saskatchewan	40,735 22	81 00	50 00	40,866 22
Vancouver	43,712 13			
Victoria	21,463 16			
British Columbia	65,175 29	16,615 43	150 00	81,940 72

WAR TAX REVENUE, 1915-16.

No. 3 A.—Stamps, Embossing cheques, Transportation tickets, Telegrams, etc.—*Concluded.*

Divisions.	Amount of stamps sold by Collectors.	Transportation tickets, Telegrams, Embossing cheques, etc.	Fines.	Total Deposited to the credit of Receiver General.
	$ cts.	$ cts.	$ cts.	$ cts.
Dawson.....Yukon	1,072 13	3,158 92	.....	4,231 05
General. U.S.A., etc.....	.....	72,568 27	.....	72,568 27
	755,369 62	793,180 73	1,938 00	1,550,488 35
Less refunds as per statement No. 15...	.....	.....	.....	11,761 39
Net War Tax Revenue	.....	.....	.....	1,538,726 96

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

EXCISE

DR. No. 4.—COLLECTION DIVISIONS

Balances due by Collectors, April 1, 1915.	Amounts received from Department to meet Expenditures.	Deductions from Salaries for					Balances due to Collectors, March 31, 1916.	Totals.	Divisions.
		Superannuation.	Insurance.	Annuities.	Retirement.	Guarantee.			
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
43 98	14,396 25	76 05	468 48	.....	584 37	37 20	.....	15,606 33	..Belleville.....
.....	9,382 76	92 40	.....	.....	239 76	22 32	.....	9,737 24	..Brantford .....
.....	23,432 32	256 40	.....	.....	378 20	51 12	.....	24,118 04	..Guelph .....
.....	26,131 63	142 83	307 06	.....	903 67	74 88	.....	27,560 07	..Hamilton .....
.....	8,297 27	66 99	.....	.....	151 02	25 20	.....	8,540 48	..Kingston .....
.....	21,914 20	119 82	77 52	.....	625 33	50 52	.....	22,787 39	..London.....
.....	11,082 17	24 00	.....	.....	367 72	27 84	.....	11,501 73	..Ottawa.....
.....	7,588 06	55 92	.....	.....	120 00	15 84	.....	7,779 82	..Owen Sound .....
.....	15,262 89	.....	96 36	.....	655 80	43 92	.....	16,058 97	..Perth .....
.....	3,379 85	18 96	.....	.....	117 57	10 98	.....	3,527 36	..Peterboro.....
.....	5,295 65	.....	.....	.....	231 76	12 24	.....	5,539 65	..Port Arthur.....
.....	13,312 93	36 00	324 52	140 40	515 67	35 04	.....	14,384 56	Prescott.....
.....	6,647 94	.....	326 16	.....	219 77	23 52	.....	7,217 39	..Stratford .....
.....	6,787 16	75 60	.....	.....	129 96	15 12	.....	7,007 84	..St. Catharines....
.....	55,038 58	325 60	393 88	.....	1,647 67	131 28	.....	57,537 01	..Toronto .....
.....	36,590 62	213 38	265 20	.....	906 78	99 36	49 08	38,124 42	..Windsor .....
.....	3,657 01	55 93	.....	.....	.....	9 00	.....	3,721 94	..Kingston District.
.....	3,410 58	.....	.....	.....	.....	9 00	.....	3,419 58	..Toronto "
.....	4,060 84	.....	.....	.....	.....	9 00	.....	4,069 84	..Windsor "
43 98	275,668 71	1,559 88	2,279 18	140 40	7,795 05	703 38	49 08	288 239 66	..*Ontario*.....
.....	13,643 05	42 49	169 20	.....	408 33	30 36	.....	14,293 43	..Joliette.....
.....	73,805 56	502 07	292 24	.....	1,837 87	169 46	.....	76,607 50	..Montreal .....
.....	30,332 17	146 05	81 69	.....	710 57	54 96	.....	31,325 44	..Quebec .....
.....	9,569 02	77 88	.....	.....	252 24	24 48	.....	9,923 62	Sherbrooke.....
.....	17,334 37	42 00	120 10	.....	501 68	31 90	.....	18,030 05	..St Hyacinthe ....
.....	4,173 84	31 92	.....	.....	.....	3 60	.....	4,209 36	..Three Rivers .....
.....	2,735 65	.....	.....	.....	121 24	9 00	.....	2,865 89	..Montreal District.
.....	3,291 62	.....	.....	.....	139 92	9 00	.....	3,440 54	Quebec "
.....	154,885 58	842 41	663 23	.....	3,971 85	332 76	.....	160,695 83	..*Quebec*.....
.....	13,293 22	131 88	.....	.....	345 20	36 00	.....	13,806 30	..St. John.....
.....	3,159 02	.....	.....	.....	108 69	9 00	.....	3,276 71	..Maritime District.
.....	16,452 24	131 88	.....	.....	453 89	45 00	.....	17,083 01	..*New Brunswick*....
.....	12,114 82	155 65	.....	.....	56 88	33 11	.....	12,360 46	..Halifax .....
.....	3,579 09	27 96	.....	.....	94 92	9 36	.....	3,711 33	..Pictou.....
.....	15,693 91	183 61	.....	.....	151 80	42 47	.....	16,071 79	..*Nova Scotia*.....
100 00	1,951 05	.....	.....	.....	96 55	5 76	.....	2,153 36	..*Charlottetown, P. E. I.*.....
200 00	24,514 05	124 22	180 12	.....	738 45	55 32	.....	25,812 16	..Winnipeg.....
.....	3,635 81	48 00	.....	.....	.....	9 00	.....	3,692 81	..District Inspector,
200 00	28,149 86	172 22	180 12	.....	738 45	64 32	.....	29,504 97	..*Manitoba*.....
.....	17,148 49	.....	40 96	.....	338 58	19 44	.....	17,547 47	..Calgary .....
.....	4,271 64	53 49	.....	.....	.....	9 00	.....	4,334 13	..Calgary District..

SESSIONAL PAPER No. 12

1915-1916.

IN ACCOUNT WITH EXPENDITURES. CR.

Balances due to Collectors, April 1, 1915.	Expenditures authorized by the Department.						Balances due by Collectors, March 31, 1916.	Totals.
	Salaries.	Seizures Expenditures.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.		
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
....	13,873 29	....	130 91	.. ..	1,380 18	177 97	43 98	15,606 33
.. ..	8,272 18	....	834 75	....	360 80	269 51	....	9,737 24
... .	23,118 26	....	330 96	60 00	196 89	411 93	. .....	24,118 04
. .....	26,422 43	....	800 00	.....	83 90	253 74	... .	27,560 07
.....	8,449 65	... .	....	....	22 25	68 58	. ...	8,540 48
....	19,838 58	....	2,191 84	.. ..	395 15	451 82	.....	22,787 39
....	9,933 19	....	1,158 74	.....	286 15	123 65	... .	11,501 73
. .....	6,999 96	....	399 96	... .	255 85	124 05	.....	7,779 82
.....	13,124 45	38 60	1,583 88	444 10	521 94	346 00	.....	16,058 97
....	3,303 95	... .	60 00	....	38 15	125 26	....	3,527 36
... .	4,639 86	....	206 00	....	411 00	288 79	.....	5,539 65
....	13,122 11	.....	1,073 58	..... .	23 65	165 22	... .	14,384 56
....	6,399 75	....	526 62	... .	120 72	170 30	.. ..	7,217 39
... .	6,699 72	... .	60 00	60 00	55 65	132 47	..... .	7,007 84
....	51,627 21	.....	4,243 49	....	726 15	940 16	.....	57,537 01
49 08	35,550 47	.....	1,749 86	35 00	426 40	313 61	....	38,124 42
..... .	2,799 94	. .....	48 00	200 00	602 20	71 80	.....	3,721 94
.....	2,824 66	.....	. . ....	..... .	578 95	15 67	.....	3,419 38
.....	2,974 98	.. . ...	. ...	....	739 55	355 31	.. ..	4,069 84
49 08	259,974 94	38 60	15,392 59	799 10	7,135 53	4,805 84	43 98	288,209 66
... .	10,209 59	52 05	3,176 19	.. ..	449 35	316 25	....	14,203 43
... .	57,258 95	891 86	15,557 64	. . ....	1,567 50	1,331 55	. .....	76,607 50
.....	19,693 23	46 25	10,333 63	.. ..	641 24	611 09	... .	31,325 44
.....	8,949 60	. ....	72 00	.....	542 95	359 07	.....	9,923 62
.....	12,138 59	236 80	4,208 67	396 00	661 70	388 29	.....	18,030 05
....	1,599 96	....	2,408 95	. .....	92 85	107 60	. . ....	4,209 36
....	2,424 99	... .	... ...	.....	428 35	12 55	. ... .	2,865 89
....	2,799 96	.....	. ..	.. ..	531 63	108 95	. ... .	3,440 54
. ... .	115,164 87	1,226 96	35,757 08	396 00	4,915 57	3,235 35	... ...	160,696 83
....	13,544 49	17 90	120 00	.. ..	36 84	117 07	....	13,836 30
. .....	2,174 97	...	. ...	.. ...	936 29	165 45	. .	3,276 71
..... .	15,689 46	17 90	120 00	.....	973 13	282 52	...	17,083 01
.....	11,829 30	30 35	99 98	.....	188 10	212 73	.....	12,360 46
. . .	3,299 88	.... .	90 00	.....	169 80	151 65	. ... .	3,711 33
... ...	15,129 18	30 35	189 98	.....	357 90	364 38	. .	16,071 79
....	1,931 91	.. ..	60 00	.....	.....	61 44	100 00	2,153 35
.....	21,131 85	. .	3,220 68	36 00	508 05	654 97	280 00	25,812 10
	2,100 00	...	... ..	.....	1,193 95	98 66	.	3,392 81
.....	23,231 85	...	3,220 68	36 00	1,702 01	753 83	280 00	29,204 87
	6,774 81	.. ..	8,237 94	.....	1,631 75	512 97		17,547 47
....	2,674 98	.....	..... .	.....	1,419 15	40 09		4,134 19

DR. No. 4.—COLLECTION DIVISIONS

Balances due by Collectors, April 1, 1915.	Amounts received from Department to meet Expenditures.	Deductions from Salaries for					Balances due to Collectors, March 31, 1915.	Totals.	Divisions.
		Superannuation.	Insurance.	Annuities.	Retirement.	Guarantee.			
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
.....	21,420 13	53 49	40,96	.....	338 58	28 44	.....	21,881 60	..*Alberta*.....
.... ..	8,647 52	.....	....	.....	288 99	18 24	.....	8,954 75	.*Mooscjaw, Saskatchewan*....
.....	27,860 25	43 92	309 32	.....	1,070 57	76 38	....	29,360 44	..Vancouver.....
.....	9,982 41	144 84	57 60	.....	104 78	24 72	.....	10,374 35	..Victoria .. . ...
.....	4,843 17	60 00	.. ....	.....	.....	9 00	.....	4,912 17	..British Columbia.
.....	42,685 83	248 76	366 92	.....	1,235 35	110 10	.. ..	44,646 96	..*British Columbia*..
.....	942 84	.....	.....	.....	49 92	7 20	.....	999 96	..*Dawson*.. .....
.....	393 64	.....	.....	....	.....	.....	.....	393 64	..Inspector of Bonded Factories...
.....	5,099 32	.....	.....	.....	.....	. .....	... ...	5,099 32	..Inspector of Malthouses and Breweries.....
.....	3,670 43	93 57	.....	.....	.....	.....	... .	3,764 00	..Inspector of Distilleries.....
.....	3,586 59	57 45	.....	.. .	....	.....	.....	3,644 04	.Inspector of Tobacco Factories.
343 98	579,247 66	3,343 27	3,530 41	140 40	15,120 43	1,357 67	49 08	603,132 89	.Total of Divisions, etc ....
.....	7,492 82	.....	.....	....	.....	.....	.....	7,492 82	..General Expenditures. .....
.....	1,744 15	.. ..	.....	....	.....	.....	....	1,744 15	..Legal Expenses...
.....	7,585 61	.. ..	.....	....	....	.....	.....	7,585 61	..Printing. .....
. .....	3,453 83	.....	.....	.....	.. ..	.....	.....	3,453 83	..Stationery..... ..
.....	3,140 89	..... .	.....	..	.....	.. ....	.....	3,140 89	..Commission to Customs Officers....
.....	15,281 16	....	.....	.. .	....	.....	... .	15,281 16	..Duty-pay to Officers in charge of most important establishments..
.....	10,042 04	.....	.....	.....	... .	.....	.....	10,042 04	..Provisional Allowance.....
.....	83,512 95	.....	.....	.....	.....	... .	.. ...	83,512 95	..Printing Tobacco Stamps.....
343 98	711,501 10	3,343 27	3,530 41	140 40	15,120 43	1,357 67	49 08	735,386 34	..Grand Total ... .

INLAND REVENUE DEPARTMENT,
OTTAWA, JULY 1, 1916.

SESSIONAL PAPER No. 12

1915-1916—*Concluded.*

IN ACCOUNT WITH EXPENDITURES. CR.

Balances due to Collectors, April 1, 1915.	Expenditures authorized by the Department.						Balances due by Collectors, March 31, 1916.	Totals.
	Salaries.	Seizures Expenditures.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.		
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
.....	9,449 79	.....	8,237 94	.....	3,240 90	952 97	.....	21,881 60
.....	5,783 05	.....	1,715 96	180 00	731 65	544 09	.....	8,954 75
.....	23,632 32	.....	3,564 18	216 00	937 00	1,010 94	.....	29,360 44
.....	8,299 74	.....	1,593 79	.....	99 70	381 12	.....	10,374 35
.....	3,000 00	.....	.....	.....	1,856 37	55 80	.....	4,912 17
.....	34,932 06	.....	5,157,97	216 00	2,893 07	1,447 86	.....	44,646 96
.....	999 96	.....	.....	.....	.....	.....	.....	999 96
.....	.....	.....	.....	.....	385 70	7 94	.....	393 64
.....	3,199 92	.....	.....	.....	1,828 10	71 30	.....	5,099 32
.....	2,674 98	.....	.....	.....	1,082 77	6 25	.....	3,764 00
.....	2,874 93	.....	.....	.....	733 86	35 25	.....	3,644 04
49 08	491,336 90	1,313 81	69,852 20	1,627 10	26,040 79	12,569,03	343 98	603,132 89
.....	.....	.....	.....	.....	.....	7,492 82	.....	7,492 82
.....	.....	.....	.....	.....	.....	1,744 15	.....	1,744 15
.....	.....	.....	.....	.....	.....	7,585 61	.....	7,585 61
.....	.....	.....	.....	.....	.....	3,453 87	.....	3,453 87
.....	.....	.....	.....	.....	.....	3,140 89	.....	3,140 89
.....	.....	.....	.....	.....	.....	15,281 16	.....	15,281 16
.....	.....	.....	.....	.....	.....	10,042 04	.....	10,042 04
.....	.....	.....	.....	.....	.....	83,312 95	.....	83,312 95
49 08	491,336 90	1,313 81	69,852 20	1,627 10	26,040 79	144,822 48	343 98	735,886 34

J. U. VINCENT,
Deputy Minister

WAR TAX, 1915-16.

Dr. No. 4 A.—In Account with Expenditures. Cr.

Amount received from Department to meet Expenditures.	Totals.	Divisions.	Expenditures authorized by the Department.			Totals.
			Special Assistance.	Travelling Expenses.	Sundries.	
$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.
1,292 62	1,292 62	Belleville	1,230 63	44 20	17 79	1,292 62
130 30	130 30	Brantford		90 60	39 70	130 30
6 52	6 52	Guelph		1 05	5 47	6 52
16 45	16 45	Hamilton		7 50	8 95	16 45
13 60	13 60	Kingston		4 00	9 60	13 60
1,323 10	1,323 10	London	1,234 28	17 40	71 42	1,323 10
6,189 10	6,189 10	Ottawa	5,030 43	778 91	379 76	6,189 10
28 47	28 47	Owen Sound		3 00	25 47	28 47
459 80	459 80	Perth	377 43	13 25	69 12	459 80
376 43	376 43	Peterboro	300 00	4 20	72 23	376 43
157 85	157 85	Port Arthur		126 85	31 00	157 85
722 07	722 07	Prescott	716 10		5 97	722 07
73 20	73 20	Stratford		21 90	51 30	73 20
4 60	4 60	St. Catharines		3 10	1 50	4 60
43 38	43 38	Toronto		35 25	8 13	43 38
1 70	1 70	Windsor District		1 70		1 70
10,839 19	10,839 19	Ontario	8,888 87	1,152 91	797 41	10,839 19
1,442 68	1,442 68	Joliette	1,419 78		22 90	1,442 68
7,915 91	7,915 91	Montreal	7,849 54		66 37	7,915 91
2,459 95	2,459 95	Quebec	2,216 61	12 95	230 39	2,459 95
27 50	27 50	Sherbrooke			27 50	27 50
1,354 29	1,354 29	St. Hyacinthe	1,350 16		4 13	1,354 29
604 19	604 19	Three Rivers	599 94		4 25	604 19
13,804 52	13,804 52	Quebec	13,436 03	12 95	355 54	13,804 52
338 42	338 42	St. John, New Brunswick		229 60	108 82	338 42

907 80	907 80	Halifax	799 92	.....	107 88	907 80
112 13	112 13	Pictou	.....	2 65	109 48	112 13
1,019 93	1,019 93	Nova Scotia	799 92	2 65	217 36	1,019 93
727 93	727 93	Winnipeg	533 28	130 75	63 90	727 93
4 40	4 40	Manitoba District	.....	1 95	2 45	4 40
732 33	732 33	Manitoba	533 28	132 70	66 35	732 33
921 69	921 69	Calgary, Alberta	866 69	.....	55 00	921 69
1,081 39	1,081 39	Vancouver	812 01	254 25	15 13	1,081 39
228 45	228 45	Victoria	199 95	.....	28 50	228 45
1,309 84	1,309 84	British Columbia	1,011 96	254 25	43 63	1,309 84
70 00	70 00	Yukon	.....	.....	70 00	70 00
4 55	4 55	Insp. Malt Houses and Breweries	.....	2 55	2 00	4 55
29,040 47	29,040 47	Totals	25,536 75	1,787 61	1,716 11	29,040 47
18,250 19	18,250 19	General Contingencies	.....	.....	18,250 19	18,250 19
6,723 40	6,723 40	Special War Act	.....	.....	6,723 40	6,723 40
54,014 06	54,014 06	Grand Total	25,536 75	1,787 61	26,689 70	54,014 06

INLAND REVENUE DEPARTMENT,
OTTAWA, JULY 1, 1916.

J. U. VINCENT,
Deputy Minister.

DR. No. 5.—IN ACCOUNT WITH EXPENDITURES. CR.

Amount received from Department to meet Expenditures.	Guarantee.	Totals.	—	Expenditures authorized by the Department.				Totals.
				Salaries.	Special Assistance.	Travelling Expenses.	Sundries.	
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
23 40		23 40	London			23 40		23 40
1,537 33	90	1,538 23	Ottawa	749 95	733 33	54 95		1,538 23
12 00		12 00	Perth			12 00		12 00
1,158 77	2 88	1,161 65	Toronto	1,161 65				1,161 65
422 96		422 96	Joliette		399 96	23 00		422 96
2,518 87		2,518 87	Montreal		1,998 87	407 15	112 85	2,518 87
3,399 72		3,399 72	Quebec		3,244 47	155 25		3,399 72
245 78		245 78	Sherbrooke		216 58	29 20		245 78
157 10		157 10	St. Hyacinthe			157 10		157 10
1,795 02		1,795 02	St. John	999 96	758 26	36 80		1,795 02
400 40		400 40	Halifax		399 84		56	400 40
1,284 82		1,284 82	Pictou		1,093 31	186 33	5 18	1,284 82
100 25		100 25	Charlottetown		100 00	25		100 25
799 92		799 92	Winnipeg		799 92			799 92
1,166 67		1,166 67	Vancouver		1,164 67		2 00	1,166 67
15,023 01	3 78	15,026 79		2,911 56	10,909 21	1,085 43	120 59	15,026 79
2,216 44		2,216 44	General				2,216 44	2,216 44
17,239 45	3 78	17,243 23	Total	2,911 56	10,909 21	1,085 43	2,337 03	17,243 23

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

FOOD INSPECTION, 1915-16.

No. 6.—In Account with Expenditures.

Dr. Cr.

Amount received from Department to meet Expenditures.	Superannuation.	Guarantee.	Totals.	Districts.	Expenditures authorized by the Department.					Totals.
					Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	
$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
[illegible]			329 82	Hamilton	[illegible]			245 80	84 02	329 82
[illegible]		1 08	431 98	Kingston	199 92			123 05	109 91	431 98
[illegible]		1 08	452 32	London	199 92			143 45	108 95	452 32
[illegible]		1 08	565 76	Toronto	199 92			197 51	168 33	565 76
1,776 64		3 24	1,779 88	Ontario	599 76			709 81	470 31	1,779 88
1,319 68	9 06	1 68	1,330 72	Montreal (J. J. Costigan)	499 92	30 00		552 14	248 66	1,330 72
[illegible]		1 68	682 74	(D. J. Kearney)	399 96			121 90	160 88	682 74
[illegible]		1 68	737 47	Quebec	300 00		120 00	160 50	156 97	737 47
[illegible]		1 68	244 57	St. Hyacinthe	199 92			37 45	7 20	244 57
2,991 22	9 06	4 32	2,995 50	Quebec	1,399 80	30 00	120 00	871 99	573 71	2,995 50
[illegible]	3 06	1 68	666 97	St. John, N.B	199 92			256 63	210 42	666 97
[illegible]		1 68	557 16	Halifax	349 92			124 15	83 09	557 16
[illegible]		1 68	215 08	Cape Breton	199 92				15 16	215 08
[illegible]		2 16	772 24	Nova Scotia	549 84			124 15	98 25	772 24
[illegible]		1 68	289 29	Charlottetown	187 55			28 98	72 76	289 29
[illegible]		[illegible]	551 86	Winnipeg, Man	09			331 35	220 42	551 86
[illegible]		[illegible]	759 00	Calgary	300 00			276 75	182 25	759 00
[illegible]		1 68	558 67	Nelson	199 92			176 40	182 35	558 67
[illegible]		1 68	400 50	Vancouver	199 92			37 25	163 33	400 50
[illegible]		1 68	382 78	Victoria	199 92			21 25	158 61	382 78

FOOD INSPECTION, 1915-16.

No. 6.—In Account with Expenditures—*Concluded.*

Dr. Cr.

Amount received from Department to meet Expenditures.	Superannuation.	Guarantee.	Totals.	District.	Expenditures authorized by the Department.					Totals.
					Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	
$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1,338 71		3 24	1,341 95	British Columbia	599 76			237 90	504 29	1,341 95
3,106 95			3,106 95	Chief Analyst		1,095 16			2,011 79	3,106 95
222 62			222 62	Ottawa				68 70	153 92	222 62
249 59			249 59	Armagh		99 96		90 95	58 68	249 59
1,056 38			1,056 38	Joliette (St. Felix de Valois)		399 96		510 80	145 62	1,056 38
287 73			287 73	Montmagny		99 96		143 15	44 62	287 73
813 23			813 23	Pierreville		774 92		30 15	8 16	813 23
25 84			25 84	Quebec [L. Hardy)				8 20	17 64	25 84
763 09			763 09	St. Anselme		199 92		521 25	41 92	763 09
71 89			71 89	St. Fabien		44 88		15 80	11 21	71 89
302 42			302 42	St. Jérome		200 00		46 70	55 72	302 42
45 35			45 35	St. Octave		44 75			60	45 35
565 41			565 41	Ste. Perpétue		300 00		214 65	50 76	565 41
99 99			99 99	St. Philippe de Néri		99 99				99 99
175 79			175 79	Tracadie		99 96		38 50	37 33	175 79
738 60			738 60	Moosejaw		258 29		320 95	159 36	738 60
75 00			75 00	Regina		75 00				75 00
1,969 56			1,969 56	Halifax Laboratory		240 00	1,312 50	31 51	385 55	1,969 56
464 95			464 95	Winnipeg "					464 95	464 95
837 58			837 58	Vancouver "				111 50	726 08	837 58
20,998 45	13 92	16 29	21,028 66		3,836 72	4,062 75	1,432 50	4,990 37	6,706 32	21,028 66
10,797 77			10,797 77	General					10,797 77	10,797 77
10,519 02			10,519 02	Printing					10,519 02	10,519 02
970 36			970 36	Stationery					970 36	970 36
43,285 60	13 92	16 29	43,315 81	Grand Total	3,836 72	4,062 75	1,432 50	4,990 37	28,993 47	43,315 81

Inland Revenue Department,
Ottawa, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

BILL STAMPS, 1915-1916.

DR. No. 7.—Bill Stamps Distributors in account with the Inland Revenue Department. CR.

Balances, April 1, 1915.		Totals.	—	Balances, March 31st, 1916.		Totals.
Stamps on hand.	Cash on hand.			Stamps on hand.	Cash on hand.	
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.
1,372 77		1,372 77	Post Office Department	1,372 77		1,372 77
	11 54	11 54	Belleville, ex-collector, E. R. Benjamin		11 54	11 54
	33 50	33 50	Three Rivers, ex-Collector, B. Lasalle		33 50	33 50
160 00		160 00	McLeod, Col. J. F., Fort McLeod	160 00		160 00
1,532 77	45 04	1,577 81	Totals	1,532 77	45 04	1,577 81

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1st, 1916.

J. U. VINCENT,
Deputy Minister.

LAW STAMPS, 1915-1916.

DR. No. 8.—LAW STAMPS in account with the Inland Revenue Department. CR.

Stamps on hand April 1, 1915.	Stamps received from Department.	Totals.	—	Deposited to the Credit of the Receiver General.	Stamps on hand March 31, 1916.	Totals.
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.
53 00	2,500 00	2,553 05	Cameron, R., Registrar, Supreme Court	2,804 00	149 05	2,553 05
105 00	6,180 75	6,285 75	Morse, Chas., Registrar, Exchequer Court	6,180 75	105 00	6,285 75
7,909 20	2,099 80	9,009 20	Lockell, G. A., Controller, Yukon Territorial Court	2,535 40	6,472 80	9,008 20
8,067 20	10,780 55	18,247 00	Totals	11,520 15	6,726 85	18,247 00

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

DR. No. 9.—SUNDRY MINOR REVENUES, 1915--16. CR.

Accrued during the year ended March 31, 1916.	Totals.	——	Deposited to the Credit of the Receiver General.	Totals.
$ cts.	$ cts.		$ cts.	$ cts.
1,441 00	1,441 00	Registration of agricultural fertilizers fees $905—Licenses $415—Fines $121	1,441 00	1,441 00
4,284 08	4,284 08	Adulteration of food fees $283—Penalties $4,001.08	4,284 08	4,284 08
248 78	248 78	Casual revenue	248 78	248 78
1,695 00	1,695 00	Patent medicine registration fees $1,665—Fines $30	1,695 00	1,695 00
821 50	821 50	Commercial feeding stuffs fees $171—Licenses $495—Fines $155.50	821 50	821 50
8,490 36	8,490 36		8,490 36	8,490 36

J. U. VINCENT,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

DR. No. 10.—SUNDRY MINOR EXPENDITURES, 1915–16. CR.

Amounts received from the Department to meet Expenditures.	Total.	——	Printing and Stationery.	Contingencies.	Totals.
$ cts.	$ cts.		$ cts.	$ cts.	$ cts.
174 85	174 85	Sundries, minor expenditures		174 85	174 85
1 80	1 80	Printing	1 80		1 80
918 90	918 90	Patent Medicines Act		918 90	918 90
310 15	310 15	" Printing	310 15		310 15
1,405 70	1,405 70		311 95	1,093 75	1,405 70

J. U. VINCENT,
Deputy Minister.

INLAND REVENUE DEPARTMENT.
OTTAWA, July 1, 1916.

DR. No. 11.—FERRY LICENSES, REVENUE FOR 1915-1916. CR.

Balances due April 1, 1915.	Accrued during the year ended March 31, 1916.	Totals.	—	Deposited to the credit of the Receiver General.	Balance due March 31, 1916.	Totals.
$ cts.	$ cts.	$ cts.	*Ferries.*	$ cts.	$ cts.	$ cts.
	15 00	15 00	Buckingham and Cumberland	15 00		15 00
	50 00	50 00	Buffalo and Point Abinot	50 00		50 00
45 83		45 83	Clair Station and Kent		45 83	45 83
	10 00	10 00	Courtright and St. Clair	10 00		10 00
	10 00	10 00	Cross Point and Campbellton	10 00		10 00
20 00		20 00	Edmundston and Maine		20 00	20 00
	10 00	10 00	Fassett and St. Thomas d'Alfred	10 00		10 00
50 00	50 00	100 00	Fort Erie and Buffalo Co	100 00		100 00
	25 00	25 00	Fort Frances	25 00		25 00
1,736 79		1,736 79	Hull (old lease)		1,736 79	1,736 79
	6 00	6 00	Montebello and Alfred	6 00		6 00
	30 00	30 00	Niagara and Youngstown	30 00		30 00
	1 00	1 00	Detroit and Windsor	1 00		1 00
1 00		1 00	Pembroke and Allumette Island (old lease)		1 00	1 00
	130 00	130 00	Pembroke and Allumette Island (new lease)	130 00		130 00
	1 00	1 00	Prescott and Ogdensburg	1 00		1 00
	10 00	10 00	Queenston and Lewistown	10 00		10 00
	25 00	25 00	Ramsay River	25 00		25 00
	510 00	510 00	Rockliffe and Gatineau	510 00		510 00
	5 00	5 00	Sand Point and Norway Bay	5 00		5 00
	100 00	100 00	Sault Ste. Marie	100 00		100 00
30 00		30 00	St. Leonard and Van Buren		30 00	30 00
	1 00	1 00	Walkerville and Detroit	1 00		1 00
1,883 62	989 00	2,872 62		1,039 00	1,833 62	2,872 62

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

No. 12.—STATEMENT showing the quantities of the several articles, subject to 1914, 1915, 1916 and

Articles subject to Excise Duty.	1914. Quantities. Ex-manufactory.	Ex-warehouse.	Totals.	Duty.
	Gallons.	Gallons.	Gallons.	$ cts.
Spirits	2,001	4,762,618	4,764,619	9,014,579 05
	....	66,497	66,497	19,949 02
Totals	2,001	4,829,115	4,831,116	9,034,528 07
Malt Liquor, the duty being paid on malt	56,060,846	....	56,060,846	155,566 07
	Lbs.	Lbs.	Lbs.	
Malt	1,000	133,793,639	133,794,639	2,007,250 77
Cigars—	No.	No.	No.	
Cigars from foreign leaf	.....	16,500	16,500	99 00
Cigars	178,096,181	110,107,211	288,203,392	576,486 39
Totals	178,096,181	110,123,711	288,219,892	576,585 39
Cigarettes	1,126,142,320	39,580,850	1,166,023,170	2,809,347 02
	Lbs.	Lbs.	Lbs.	
Tobacco from foreign leaf	.....	.....	....	.....
Canada twist	.....	11,057	11,057	552 85
Tobacco	13,865,155	7,777,801	21,642,956	1,082,148 12
Snuff	594,747	... .	594,747	29,737 35
Totals	14,459,902	7,788,858	22,248,760	3,921,785 34
Raw leaf tobacco, foreign	....	18,775,803	18,775,803	5,322,240 99
Other materials	.....	1,510,010	1,510,010	241,601 60
Total duties on tobacco and cigarettes	.....	.....	.....	9,485,627 93
Vinegar	....	.....	..... .	88,760 38
Acetic acid	....	.....	....	11,337 59
Licenses, Spirits	....	.....	....	3,500 00
" Malt Liquor	....	....	....	5,850 00
" Malt	.....	.....	....	5,050 00
" Cigars	....	....	....	12,350 00
" Tobacco	.....	.....	....	3,798 00
" Bonded Manufactures	.....	.....	.....	3,400 00
" Acetic acid	.....	.. . .	....	75 00
Grand Total duty	....	....	... .	21,393,679 20

* Spirits imported for use in the manufacture of crude fulminate, on which duty, at the rate of 30 cents

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

Excise Duty, taken for consumption, during the fiscal years ended March 31, the duty accrued thereon.

1915.				1916.			
Quantities.			Duty.	Quantities.			Duty.
Ex-manufactory.	Ex-warehouse.	Totals.		Ex-manufactory.	Ex-warehouse.	Totals.	
Gallons.	Gallons.	Gallons.	$ cts.	Gallons.	Gallons.	Gallons.	$ cts.
6,407	4,021,090	4,027,497	8,689,574 23	4,066	3,629,324	3,633,390	8,671,538 55
.....	44,690	44,690	13,407 09	.....	85,954	85,954	25,786 13
6,407	4,065,780	4,072,187	8,702,981 42	4,066	3,715,278	3,719,344	8,697,324 78
47,955,947	7,278	47,963,225	137,003 23	39,488,374	150,503	39,638,877	92,079 45
Lbs.	Lbs.	Lbs.		Lbs.	Lbs.	Lbs.	
....	111,037,743	111,037,743	2,610,887 82	2,946	89,473,644	89,476,590	2,684,699 63
No.	No.	No.		No.	No.	No.	
....	12,300	12,300	84 10	2,946	3,800	3,800	26 60
138,170,411	98,683,831	236,854,242	613,021 07	134,992,358	72,651,650	207,644,008	623,081 23
138,170,411	98,696,131	236,866,542	613,105 17	134,992,358	72,655,450	207,647,808	623,107 83
1,062,143,295	27,962,640	1,090,125,936	3,004,822 14	1,061,670,760	20,653,950	1,082,324,710	3,252,797 58
Lbs.	Lbs.	Lbs.		Lbs.	Lbs.	Lbs.	
... .	....	... ...	.....	....	175	175	43 75
.. ....	6,855	6,855	637 50	..... .	7,430	7,430	743 00
13,579,224	7,085,181	20,664,405	1,643,641 55	12,996,915	7,149,484	20,146,399	2,015,414 76
509,597	.....	509,597	40,226 75	541,237	.....	541,237	54,423 70
14,088,821	7,092,036	21,180,857	4,689,327 94	13,541,152	7,157,089	20,698,241	5,323,422 79
.. ..	15,723,329	15,723,329	4,454,283 52	. ....	16,571,311	16,571,311	4,676,787 99
... .	1,280,589	1,280,589	204,894 24	.....	1,365,175	1,365,175	218,428 00
.. ..	.... .	... . .	9,348,505 70	....	.....	.....	10,218,008 78
....	..... .	.....	90,953 66	..... .		....	100,112 24
. ...	.. ..	.....	7,155 48	.			8,150 14
.. .	....	....	3,500 00	....	.....	.....	3,750 00
.....	... .	.....	5,900 00	... ..			5,700 00
..... .	.. ..	....	5,400 00	. ...			4,600 00
..	.....	... .	12,800 00	... ..	.....	.....	12,000 00
..	.....	.....	4,375 00	.....	.....	....	4,175 00
.....	.....	.. .	3,950 00	.	.....		5,700 00
. ....	.....	.....	100 00	..	.....	.....	100 00
.....	.....	....	21,546,617 48	.....	...	.....	23,400,167 70

per gallon, was collected and afterwards refunded, on the exportation of the following:

J. U. VINCENT,
Deputy Minister.

No. 13.—Amounts deposited monthly to the credit of the Receiver General,

——	Ontario.	Quebec.	New Brunswick.	Nova Scotia.
	$ cts.	$ cts.	$ cts.	$ cts.
April:—				
Excise	410,952 71	752,063 48	16,932 27	9,969 91
" Seizures		210 00		
Ferries	245 00	10 00		
Weights and Measures Inspection	872 25	816 50		
Gas Inspection	947 05			
Electric Light Inspection	1,578 30	174 75		
Patent Medicines Fees	163 00	24 00	3 00	6 00
Fertilizers Fees	31 00	1 00	1 00	
" Fines	37 00			
Methylated Spirits	5,220 21	2,560 77	72 40	32 77
Commercial Feeding Stuffs	22 00	5 00		
" " " Fines	37 50			
Adulteration of Food Fees	65 14	121 00		
War Tax Revenue Stamps	21,061 56	10,823 44	1,088 07	1,432 48
Totals	441,232 72	766,809,94	18,096 74	11,441 16
May:—				
Excise	492,951 57	1,065,162 60	17,492 59	13,659 44
" Seizures		261 92		
Ferries	161 00		10 00	
Weights and Measures Inspection	3,408 58	2,351 40	91 45	220 95
" " Seizures	2 00			
Gas Inspection	2,018 85	842 80	12 00	60 20
Electric Light Inspection	2,902 05	2,146 10	34 05	128 85
Law Stamps (Supreme Court)	409 30			
" " (Exchequer Court)	466 50			
" " (Yukon Territorial Court)				
Patent Medicines Fees	50 00	18 00	1 00	2 00
Fertilizers Fees	45 00	7 00		
" Fines	21 00	14 00	10 00	
Methylated Spirits	6,265 14	1,287 79	66 87	66 96
Commercial Feeding Stuffs	21 00			
" " " Fines				
Adulteration of Food Fees	43 00	5 00		
Electrical Standard of Laboratory				
Testing Milk Glasses	637 31			
War Tax Revenue Stamps	21,819 68	7,298 59	2,173 33	2,236 64
War Tax Fine	50 00			
Casual Revenue	83 18			
Totals	531,355 16	1,079,395 20	19,894 29	16,375 04
June:—				
Excise	466,818 00	1,156,967 24	16,526 31	16,387 25
" Seizures	100 00	581 50		
Weights and Measures Inspection	3,592 25	3,084 05	155 25	199 80
" " " Seizures	5 00			
Gas Inspection	3,846 70	2,124 60	76 60	69 00
Electric Light Inspection	3,439 50	1,303 20	70 50	199 95
Law Stamps (Supreme Court)	196 40			
" " (Exchequer Court)	345 00			
" " (Yukon Territorial Court)				
Patent Medicines Fees	29 00	16 00		5 00
Fertilizers Fees	20 00	1 00		
Methylated Spirits	6,957 34	1,412 99	59 26	108 29
Commercial Feeding Stuffs	16 00			
Adulteration of Food Fees	35 00	65 00		5 00
Electrical Standard of Laboratory	5 00			
Testing Milk Glasses	108 00			
War Tax Revenue Stamps	27,610 45	10,032 92	1,880 87	1,484 60
Casual Revenue	7 80			
Totals	513,131 44	1,175 588 50	18,768 79	18,458 89

on account of Inland Revenues, during the year ended March 31, 1916.

Prince Edward Island.	Manitoba.	Alberta.	Saskatchewan.	British Columbia.	Yukon.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1,479 16	71,108 37	40,855 23	10,346 54	42,696 23	154 80	1,356,558 70
						210 00
						255 00
		115 60	28 50			1,382 85
				24 00		971 05
						1,753 05
	6 00	1 00	2 00	4 00		209 00
11 00						44 00
				25 00		62 00
	217 46					8,103 61
		2 00				29 00
						37 50
						186 14
119 30	3,643 43	2,053 41	967 15	4,504 06		45,692 90
1,609 46	74,975 26	43,027 24	11,344 19	47,253 29	154 80	1,415,944 80
2,120 14	74,114 09	37,729 11	15,140 84	52,054 16	387 61	1,770,812 15
						261 92
						171 00
13 95	1,158 15	376 65	1,078 05	375 60		9,077 78
		10 00				12 00
	379 20	152 20		189 00		3,054 25
13 95	573 75	119 70	271 05	738 00		6,927 50
						469 30
						466 30
				152 70		152 70
	4 00	1 00	2 00	5 00		83 00
						52 00
				14 00		89 00
	718 62			72 64		8,478 02
						21 00
				14 00		14 00
						48 01
				1 00		1 00
						637 31
61 40	2,804 18	2,314 59	1,268 83	4,493 26	44 35	44,515 05
						50 00
			5 00			88 18
2,209 44	79,751 99	40,703 25	17,765 77	57,956 66	584 86	1,845,991 66
1,864 02	62,510 12	26,798 11	11,616 61	50,009 21	720 95	1,810,217 83
						881 50
11 50	729 00	761 75	897 60	308 35		9,702 70
		20 00				25 00
	225 80	79 80		188 80		6,811 30
	487 50	294 00	205 95	912 00		6,312 80
						100 40
						34 00
					189 65	189 65
	2 00	1 00		1 00		54 00
						21 00
	137 58			83 19		8,708 60
						16 00
						100 00
				7 80		12 70
						108 00
111 43	1,291 99	2,178 88	2,148 24	4,740 14	104 75	54,009 37
						7 80
1,980 95	68,383 09	30,133 54	14,848 40	56,380 29	1,015 20	1,898,518 17

No. 13.—Amounts deposited monthly to the credit of the Receiver General, on

—	Ontario.	Quebec.	New Brunswick.	Nova Scotia.
	$ cts.	$ cts.	$ cts.	$ cts.
July:—				
Excise	453,395 10	1,085,443 17	16,005 71	15,613 35
" Seizures		650 00	160 35	
Ferries		150 00		
Weights and Measures Inspection	6,508 12	3,936 40	49 80	652 65
Gas Inspection	1,915 05	1,292 70	45 80	63 20
Electric Light Inspection	2,868 20	2,182 60	109 80	161 20
Law Stamps (Supreme Court)	240 40			
" (Exchequer Court)	586 00			
" (Yukon Territorial Court)				
Patent Medicines Fees	25 00	10 00		
Fertilizers Fees	16 00			
Methylated Spirits	5,026 77	1,953 10	32 86	
Commercial Feeding Stuffs	22 00			
" " " Fines		14 00		
Adulteration of Food Fees	95 00	34 00		
War Tax Revenue Stamps	28,056 17	10,655 74	2,600 37	3,560 61
War Tax Revenue, Transportation, &c	672 40	14,737 60	156 95	125 36
War Tax Fine	10,550 48	v.s.		
Casual Revenue	3 00	10 00		
Total	509,919 69	1,121,069 31	19,161 64	20,177 37
August:—				
Excise	480,672 54	1,121,356 61	14,889 29	17,691 52
" Seizures	10 00	622 08		
Ferries	150 00			
Weights and Measures Inspection	4,674 33	3,940 95	385 80	248 05
" " Seizures	25 00	5 00		
Gas Inspection	2,246 25	751 30	35 20	31 80
Electric Light Inspection	2,043 40	993 60	83 85	156 75
Law Stamps (Supreme Court)	215 75			
" (Exchequer Court)	589 00			
" (Yukon Territorial Court)				
Patent Medicines Fees	19 00	17 00	2 00	1 00
Fertilizers Fees	11 00	8 00		
Methylated Spirits	5,713 59	1,541 49	70 36	32 77
Adulteration of Food Fees	25 00			
Electric Standard of Laboratory	20 00			
Testing Milk Glasses	129 55			
War Tax Revenue Stamps	25,909 39	9,130 72	2,153 64	1,995 85
War Tax Revenue, Transportion, &c	20,330 14 3,631 00	v.s.115,892 53	164 85	1,137 59
War Tax Fine	50 00			
Casual Revenue	124 90			
Total	545,689 84	1,254,259 28	17,784 99	21,295 33
September:—				
Excise	485,819 46	1,080,562 12	19,894 37	18,935 16
" Seizures		1,343 55		
Ferries	5 00			
Weights and Measures Inspection	3,992 15	2,832 45	116 55	487 50
" " Seizures	45 00			
Gas Inspection	2,428 35	470 05	50 40	32 40
Electric Light Inspection	2,254 50	868 50	78 60	220 05
Law Stamps (Exchequer Court)	546 00			
" (Yukon Territorial Court)				
Patent Medicines Fees	23 00	4 00	1 00	
Fertilizers Fees	2 00	26 00		4 00
Methylated Spirits	5,296 85	2,072 66	69 02	75 37
Commercial Feeding Stuffs	20 00			
" " " Fines	19 00	57 00		
Adulteration of Food Fees	155 65	122 66		
Electrical Standard Laboratory	13 00			
War Tax Revenue Stamps	25,838 46	14,229 20	2,070 08	2,151 73
War Tax Revenue, Transportation, &c	1,007 81	1,846 00	10 30	
Total	527,466 23	1,104,431 19	22,290 32	21,906 21

account of Inland Revenues, during the year ended March 31, 1916.—*Continued*.

Prince Edward Island.	Manitoba.	Alberta.	Saskatchewan.	British Columbia.	Yukon.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
2,139 24	59,133 89	32,245 61	6,842 76	49,530 42	3,060 90	1,723,341 15
.....	.....	.....	.....	2 35	.....	812 70
.....	.....	.....	.....	.....	.....	150 00
22 35	411 70	370 20	1,869 35	243 15	.....	14,063 72
9 00	286 80	98 30	.....	140 80	.....	3,845 65
1 80	412 50	273 90	258 15	1,158 95	.....	7,427 10
.....	.....	.....	.....	.....	.....	240 40
.....	.....	.....	.....	.....	.....	586 00
.....	.....	.....	.....	.....	144 60	144 60
.....	1 00	.....	1 00	2 00	.....	40 00
.....	.....	.....	.....	.....	.....	16 00
.....	.....	.....	.....	176 82	.....	7,189 55
.....	.....	.....	.....	.....	.....	22 00
.....	14 00	.....	.....	.....	.....	28 00
.....	.....	.....	.....	.....	.....	129 00
.....	.....	.....	.....	.....	.....	.....
74 28	5,278 90	4,124 18	4,435 83	4,661 53	103 50	63,551 11
100 30	728 00	429 40	.....	1,379 60	63 65	28,943 74
.....	.....	.....	.....	.....	.....	13 00
2,337 97	66,260 79	37,541 59	13,407 09	57,295 62	3,372 65	1,850,543 72
1,784 62	62,733 51	29,207 46	19,491 22	52,008 71	717 99	1,800,553 47
.....	.....	.....	.....	.....	.....	632 08
.....	.....	.....	.....	.....	.....	150 00
57 20	384 95	681 20	1,793 60	290 40	.....	12,456 48
.....	.....	25 00	.....	.....	.....	55 00
.....	245 10	223 60	.....	184 60	.....	3,717 85
.....	344 10	432 45	131 25	792 80	.....	4,978 20
.....	.....	.....	.....	.....	.....	215 75
.....	.....	.....	.....	.....	.....	589 00
.....	.....	.....	.....	.....	528 95	528 95
.....	2 00	.....	1 00	1 00	.....	43 00
.....	.....	.....	.....	.....	.....	19 00
.....	104 79	.....	.....	31 90	.....	7,494 90
.....	.....	.....	.....	10 00	.....	35 00
.....	.....	.....	.....	.....	.....	20 00
.....	.....	.....	.....	.....	.....	129 55
226 23	5,054 31	3,136 19	3,332 04	4,983 09	171 63	55,193 09
.....	511 95	44 00	10 00	2,552 73	.....	144,274 79
.....	.....	.....	.....	.....	.....	50 00
.....	.....	.....	.....	1 50	.....	126 40
2,068 05	69,380 71	33,749 90	24,759 11	60,856 73	1,418 57	2,031,292 84
1,908 78	71,737 99	44,334 96	23,376 24	57,471 07	667 92	1,894 648 07
.....	.....	.....	.....	3 50	.....	1,347 65
.....	.....	.....	.....	.....	.....	4 00
48 80	1,365 80	719 95	1,746 65	368 50	.....	11,678 35
.....	.....	.....	.....	.....	.....	45 00
10 00	157 55	67 20	.....	237 15	.....	3,433 10
2 40	132 15	559 50	110 70	820 20	.....	5,048 60
.....	.....	.....	.....	.....	.....	566 00
.....	.....	.....	.....	.....	301 70	301 70
.....	.....	1 00	.....	2 00	.....	31 00
.....	.....	.....	.....	.....	.....	32 00
.....	139 05	.....	.....	.....	.....	7,402 93
.....	.....	.....	.....	26 00	.....	46 00
.....	.....	.....	.....	.....	.....	78 00
.....	.....	.....	71 00	5 00	.....	264 31
.....	.....	.....	.....	3 75	.....	10 75
57 75	5,713 11	3,228 98	2,761 96	5,518 64	67 75	61,[illegible] 96
.....	11 00	50 00	6 00	151 80	.....	3,487 94
2,027 73	79,229 65	46,961 59	28,073 85	64,609 61	977 37	1,930,[illegible] 75

No. 13—AMOUNTS deposited monthly to the credit of the Receiver General, on

	Ontario.	Quebec.	New Brunswick.	Nova Scotia.
	$ cts.	$ cts.	$ cts.	$ cts.
OCTOBER :—				
Excise	499,142 97	1,097,731 35	18,827 84	15,029 26
" Seizures	100 00	583 07		
Weights and Measures Inspection	4,959 25	3,049 60	433 35	221 85
" " Seizures	15 00			
Gas Inspection	2,426 50	474 60	45 20	54 45
Electric Light Inspection	2,478 90	1,015 95	89 85	116 55
Law Stamps (Supreme Court)	627 85			
" (Exchequer Court)	433 50			
" (Yukon Territorial Court)				
Patent Medicines Fees	7 00	12 00		
Fertilizers Fees	7 00	1 00	22 00	
Methylated Spirits	6,674 74	3,232 59	70 22	106 80
Commercial Feeding Stuffs	7 00			
Adulteration of Food Fees	5 00	137 00		50 00
Testing Milk Glasses	130 70			
War Tax Revenue Stamps	28,955 70	10,465 34	2,076 48	1,999 88
War Tax Revenue, Transportation, etc.	2,864 55 16,736 88	U.S. 69,495 41	271 85	247 90
War Tax Fine				
Total	565,572 54	1,186,197 91	21,836 79	17,826 69
NOVEMBER :—				
Excise	548,975 70	1,248,002 77	18,281 67	16,087 15
" Seizures		1,226 00		
Ferries	1 00			
Weights and Measures Inspection	3,441 32	2,369 55	389 15	311 80
" " Seizures				
Gas Inspection	2,644 90	425 35	101 10	28 50
Electric Light Inspection	2,541 75	1,063 25	154 80	162 75
Law Stamps (Supreme Court)	113 10			
" (Exchequer Court)	455 50			
" (Yukon Territorial Court)				
Patent Medicines Fees	9 00	4 00	1 00	
Fertilizers Fees	156 00	5 00	25 00	5 00
Methylated Spirits	8,324 02	1,988 05	59 44	66 45
Commercial Feeding Stuffs	121 00	15 00		
Adulteration of Food Fees	46 25	14 00		23 00
Electrical Standard of Laboratory	7 25			
War Tax Revenue Stamps	32,278 71	10,659 97	2,164 05	2,385 23
War Tax Revenue, Transportation, &c.	10,161 45 9,447 95	139,826 66	31 10	2,278 44
War Tax Fines	51 00			
Casual Revenue	7 00			
Total	618,792 90	1,405,599 60	21,207 31	21,348 32
DECEMBER :—				
Excise	575,312 17	1,362,851 22	23,718 86	18,225 94
" Seizures	150 00	852 45		213 70
Ferries	30 00			
Weights and Measures Inspection	3,896 93	1,093 75	272 45	76 35
" " Seizures	10 00			
Gas Inspection	2,369 20	465 20	82 40	31 30
Electric Light Inspection	2,939 25	1,516 05	124 50	241 95
Law Stamps (Supreme Court)	200 80			
" (Exchequer Court)	1,106 50			
" (Yukon Territorial Court)				
Patent Medicines Fees	21 00	10 00	2 00	2 00
Fertilizers Fees	167 00	12 00	37 00	92 00
Methylated Spirits	5,501 87	2,003 18	102 59	109 69
Commercial Feeding Stuffs	114 00	17 00		7 00
Adulteration of Food Fees	188 00	241 75		8 00
Electrical Standard of Laboratory	11 25	2 00		
War Tax Revenue Stamps	41,052 45	15,443 43	2,695 13	3,029 73
War Tax Revenue, Transportation, etc.	18,288 06	6,530 70	12 45	75 10
War Tax Fine	120 00	50 00		
Total	651,478 48	1,391,088 73	27,047 38	22,112 76

account of Inland Revenues, during the year ended March 31, 1916—*Continued*

Prince Edward Island.	Manitoba.	Alberta.	Saskatchewan.	British Columbia.	Yukon.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts	$ cts.	$ cts.
2,345, 88	77,292 02	31,548,35	34,007 70	44,644 67	243 49	1,820,813 53
.....	.....	.....	.....	.....	.....	683 07
55 25	1,305 50	821 75	288 15	421 85	.....	11,556 55
.....	.....	.....	.....	.....	.....	15 00
5 00	129 00	47 40	.....	163 80	.....	3,345 95
.....	342 15	279 45	321 00	573 40	.....	5,217 25
.....	.....	.....	.....	.....	.....	627 85
.....	.....	.....	.....	.....	.....	433 50
.....	.....	.....	.....	.....	225 95	225 95
.....	.....	.....	2 00	1 00	.....	22 00
.....	.....	.....	.....	.....	.....	30 00
.....	35 51	.....	.....	104 87	.....	10,224 73
.....	.....	9 00	.....	19 00	.....	35 00
5 00	.....	.....	.....	10 00	.....	207 00
.....	.....	.....	.....	.....	.....	130 70
122 31	5,681 71	3,058 41	3,788 49	4,649 69	30 20	60,828 21
280 35	5,604 60	4 00	3 00	1,503 25	.....	97,011 79
.....	.....	.....	50 00	.....	.....	50 00
2,813 79	90,390 49	35,768 36	38,460 34	52,091 53	499 64	2,011,458 08
2,316 62	111,219 30	55,089 45	49,379 23	56,928 92	586 07	2,106,866 88
.....	.....	.....	.....	.....	.....	1,226 00
.....	.....	.....	.....	.....	.....	1 00
70 30	1,550 85	684 95	999 85	407 70	.....	10,225 47
.....	.....	11 00	.....	.....	.....	11 00
5 25	229 50	101 60	.....	206 15	.....	3,742 35
37 05	318 30	251 55	170 50	461 95	.....	5,161 90
.....	.....	.....	.....	.....	.....	113 10
.....	.....	.....	.....	.....	.....	455 50
.....	.....	.....	.....	.....	318 90	318 90
.....	.....	.....	1 00	1 00	.....	16 00
5 00	.....	5 00	.....	10 00	.....	211 00
.....	133 38	.....	.....	.....	.....	10,581 34
.....	5 00	5 00	5 00	7 00	.....	158 00
.....	15 00	30 00	.....	.....	.....	128 25
.....	.....	.....	.....	.....	.....	7 25
95 49	6,978 33	4,351 77	5,182 09	5,190 88	80 00	69,366 32
.....	486 00	28 00	15 00	2,869 95	483 51	165,628 06
.....	250 00	.....	.....	.....	.....	301 00
.....	1 65	.....	.....	.....	.....	8 65
2,529 71	121,187 31	60,558 32	55,752 67	66,083 55	1,468 48	2,374,528 17
2,284 55	131,474 04	73,695 98	53,423 55	60,567 19	241 81	2,311,795 81
.....	.....	75 00	.....	51 00	.....	1,342 15
.....	.....	.....	.....	.....	.....	30 00
11 25	1,036 60	341 00	484 40	361 90	82 50	7,697 18
.....	.....	.....	.....	.....	.....	10 00
21 10	165 60	76 10	.....	193 60	.....	3,401 50
21 60	381 20	150 75	431 40	637 15	.....	6,443 85
.....	.....	.....	.....	.....	.....	280 80
.....	.....	.....	.....	.....	.....	1 100 50
.....	.....	.....	.....	.....	290 65	290 65
.....	1 00	.....	1 00	.....	.....	57 00
.....	13 00	.....	.....	25 00	.....	348 00
.....	.....	.....	.....	74 25	.....	7,791 08
.....	7 00	17 00	5 00	24 00	.....	191 00
19 00	5 00	.....	85 00	76 20	.....	569 95
.....	.....	.....	.....	.....	.....	13 25
139 85	9,852 83	5,879 59	5,117 40	8,019 98	77 48	91,307 87
.....	12 00	69 02	.....	2,842 00	2,611 70	30,411 09
.....	50 00	.....	.....	.....	.....	250 00
2,497 35	142,998 27	80,304 44	69,517 75	72,842 27	3,264 39	2,463,141 68

No. 13.—Amounts deposited monthly to the credit of the Receiver General, on

	Ontario.	Quebec.	New Brunswick.	Nova Scotia.
	$ cts.	$ cts.	$ cts.	$ cts.
January :—				
Excise	489,702 39	973,231 63	20,288 26	17,419 37
" Seizures	305 00	737 90		
Ferries	211 00			
Weights and Measures Inspection	4,211 18	1,073 65	168 75	316 20
" " Seizures				
Gas Inspection	2,454 35	405 75	39 00	42 80
Electric Light Inspection	2,447 40	1,324 85	110 85	366 15
Law Stamps (Supreme Court)	66 70			
" " (Exchequer Court)	434 50			
Patent Medicines Fees	14 00	8 00		1 00
Fertilizers Fees	281 00	10 00	2 00	48 00
Methylated Spirits	6,769 20	1,884 78	34 11	36 98
Commercial Feeding Stuffs	53 00	10 00		
Adulteration of Food Fees	396 55	86 00		
Electrical Standard of Laboratory	25 25			
War Tax Revenue Stamps	33,148 66	10,655 08	2,111 14	2,623 81
War Tax Revenue, Transportation, etc.	7,483 31 10,484 67	58,417 37	154 05	325 84
War Tax Fine		100 00		
Totals	558,488 16	1,047,945 01	22,908 16	21,180 15
February :—				
Excise	512,841 57	1,085,425 43	20,794 38	14,227 49
" Seizures	55 00	858 17		
Ferries	60 00			
Weights and Measures Inspection	2,340 74	1,607 85	26 05	106 15
" " Seizures				
Gas Inspection	2,004 30	420 55	47 80	41 10
Electric Light Inspection	2,169 85	880 20	128 70	219 15
Law Stamps (Supreme Court)	308 90			
" " (Echequer Court)	384 50			
" " (Yukon Territorial Court)				
Patent Medicines Fees	179 00	42 00	6 00	14 00
Fertilizers Fees	99 00	2 00	16 00	25 00
Methylated Spirits	7,783 35	3,383 53	103 13	
Commercial Feeding Stuffs	16 00	9 00		
Adulteration of Food Fees	654 63	88 00		
Electrical Standard of Laboratory				
Electric Light Export Licenses	200 00	75 00	25 00	
Testing Milk Glasses	164 70			
War Tax Revenue Stamps	30,254 72	10,241 03	2,064 46	2,120 74
War Tax Revenue, Transportation, etc.	17,176 54 15,107 29	123,524 95	318 70	1,435 40
War Tax Fine		200 00		
Totals	591,800 09	1,226,757 71	23,530 22	18,189 03
March :—				
Excise	668,903 88	1,442,720 02	28,391 97	16,352 03
" Seizures		1,046 85		
Ferries		6 00		
Weights and Measures Inspection	4,775 05	2,316 30	227 55	67 35
Gas Inspection	4,735 65	964 55	79 40	106 00
Electric Light Inspection	5,020 10	2,346 90	597 15	251 25
Law Stamps (Supreme Court)	424 80			
" " (Exchequer Court)	833 75			
" " (Yukon Territorial Court)				
Patent Medicines Fees	591 00	150 00	10 00	29 00
" " Fines	30 00			
Fertilizers Fees	33 00	7 00	4 00	
Methylated Spirits	11,729 58	3,070 44	102 17	67 41
Commercial Feeding Stuffs	21 00			
Adulteration of Food Fees	334 25	227 00		210 00
Electrical Standard of Laboratory				2 00
War Tax Revenue Stamps	41,857 61	12,193 46	2,744 06	3,176 96
War Tax Revenue, Transportation, &c.	863 75 6,610 00	60,705 42	1,374 60	283 95
War Tax Fine	167 00	650 00		
Casual Revenue	4 75			
Totals	746,938 20	1,526,433 91	33,530 90	20,545 95

account of Inland Revenues, during the year ended March, 31, 1916.—*Concluded.*

Prince Edward Island.	Manitoba.	Alberta.	Saskatchewan.	British Columbia.	Yukon.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts	$ cts.	$ cts.
2,237 54	108,602 34	66,424 48	35,683 85	43,042 93	239 83	1,756,872 62
						1,042 90
						211 00
22 55	168 80	301 95	1,313 45	165 40		7,741 93
		22 60				22 60
8 25	188 65	130 70		269 65		3,539 15
7 20	332 10	157 50	47 25	565 80		5,359 10
						66 70
						434 50
	1 00			3 00		27 00
	5 00			12 00		358 00
	100 29					8,825 36
	16 00			7 00		86 00
	5 00					487 55
				1 75		27 00
166 08	6,977 37	3,960 87	4,191 43	5,660 33	84 00	69,578 77
180 05	1,165 05	39 00	24 00	1,323 65		79,596 99
				50 00		150 00
2,621 07	117,561 60	71,037 10	41,259 98	51,101 51	323 83	1,934,427 17
	97,029 37	48,580 11	21,672 50	50,164 69	967 20	1,851,702 74
						913 17
						60 00
11 05	499 75	399 00	456 60	99 00		5,546 19
		10 00				10 00
5 50	183 10	54 10		171 20		2,927 65
20 10	268 50	147 00	60 15	443 65		4,337 30
						308 90
						384 50
					259 40	259 40
2 00	5 00	1 00	4 00	8 00		261 00
5 00						147 00
	68 03			32 69		11,370 13
		8 00				33 00
	15 00			168 00		925 63
				7 00		7 00
				100 00		400 00
						164 70
	5,077 48	3,963 09	2,931 28	5,770 31	136 72	62,559 86
	968 00	73 00	23 00	3,084 15		161,713 03
						200 00
43 65	104,114 23	53,235 30	25,147 53	60,948 12	1,363 32	2,104,229 20
3,948 94	98,999 12	65,279 14	22,481 43	78,580 67	351 43	2,426,008 63
	150 00					1,196 85
						6 00
16 10	1,029 45	203 30	473 20	186 90		9,825 20
11 00	383 15	147 85		394 40		5,822 00
61 20	360 45	354 30	297 30	1,198 65		10,487 30
						424 80
						833 75
					162 90	162 90
	19 00	7 00	4 00	32 00		842 00
						30 00
						44 00
	212 11			243 82		15,429 53
		5 00				20 00
	20 00	5 00		289 00		1,085 25
				3 75		5 75
451 39	7,956 69	4,597 95	4,105 08	7,625 49	119 30	84,828 22
3,261 00	180 00	6 00		936 30		74,221 03
				100 00		917 00
						4 75
7,749 63	109,309 97	70,605 54	27,361 01	89,490 98	633 83	2,632,690 95

RECAPITULATION of Statement No. 13 showing the

—	Ontario.	Quebec.	New Brunswick.	Nova Scotia.	Prince Edward Island.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Excise	6,085,428 06	13,471,517 64	232,043 52	189,597 87	24,420 49
" Seizures	720 00	8,973 49	160 35	213 70	
Ferries	863 00	166 00	10 00		
Weights and Measures Inspection	46,672 15	28,502 45	2,319 15	2,931 20	320 75
" " Seizures	102 00	5 00			
Gas Inspection	30,037 15	8,637 45	614 90	560 75	75 10
Electric Light Inspection	32,683 20	15,815 95	1,582 65	2,224 60	165 30
Law Stamps (Supreme Court)	2,804 00				
" (Exchequer Court)	6,180 75				
" (Yukon Territorial Court)					
Patent Medicines Fees	1,130 00	315 00	26 00	61 00	2 00
" " Fines	30 00				
Fertilizers Fees	868 00	80 00	107 00	174 00	21 00
" Fines	58 00	14 00	10 00		
Methylated Spirits	81,272 66	26,391 37	842 43	703 49	
Commercial Feeding Stuffs	436 00	56 00		7 00	
" " Fines	56 50	71 00			
Adulteration of Food Fees	2,043 47	1,141 41		296 00	24 00
Electrical Standard of Laboratory	81 75	2 00		2 00	
Electric Light Export Licenses	200 00	75 00	25 00		
Testing Milk Glasses	1,170 26				
War Tax Revenue Stamps	354,460 24	126,124 95	25,848 78	28,171 16	1,625 51
Wax Tax Revenue Transportation, etc	78,848 01	599,270 95	2,494 85	5,909 58	3,821 70
War Tax Fine	438 00	1,000 00			
Casual Revenue	229 88	10 00			
Totals	6,729,296 43	14,288,169 66	266,084 63	230,829 80	30,498 40

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1st, 1916.

SESSIONAL PAPER No. 12

Total Revenues for the Year ended March 31, 1916.

Manitoba.	Alberta.	Saskatchewan.	British Columbia.	Yukon.	General.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1,025,954 16	551,787 99	313,462 47	637,698 90	8,280 00		22,540,191 10
150 00	75 00		56 85			10,349 39
						1,039 00
9,640 55	5,777 30	11,389 40	3,228 75	82 55		110,864 25
	98 60					205 60
2,567 45	1,178 85		2,363 15			46,034 80
3,952 70	3,020 10	2,304 70	8,302 55			70,051 75
						2,804 00
						6,180 75
				2,535 40		2,535 40
41 00	12 00	18 00	60 00			1,665 00
						30 00
18 00	5 00		47 00			1,320 00
			39 00			121 00
1,866 82			769 58			111,846 35
28 00	46 00	10 00	83 00			666 00
14 00			14 00			155 50
60 00	35 00	126 00	558 20			4,284 08
			24 75			110 50
			100 00			400 00
						1,170 26
69,308 43	42,847 91	40,735 22	65,175 29	1,072 13		735,369 62
9,669 60	742 42	81 00	16,615 43	3,158 92	72,568 27	793,180 73
300 00		50 00	150 00			1,938 00
1 65		5 00	1 50			248 78
1,123,572 36	605,626 17	368,181 79	735,288 95	15,129 00	72,568 27	24,462,761 86

J. U. VINCENT,
Deputy Minister.

EXCISE

No. 14.—Comparative Statement

—		April.	May.	June.	July.	August.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Spirits	1914-15	664,375 72	595,450 46	611,645 43	602,395 55	1,425,478 18
	1915-16	535,048 79	564,066 96	561,672 59	523,961 29	588,209 50
	Increase					
	Decrease	129,326 93	31,383 50	49,972 84	78,434 26	837,268 68
Malt Liquor	1914-15	20,054 10	12,591 78	14,518 80	13,617 70	12,476 45
	1915-16	13,545 95	9,252 70	9,338 90	7,427 15	10,639 80
	Increase					
	Decrease	6,508 15	3,339 08	5,179 90	6,190 55	1,836 65
Malt	1914-15	167,668 48	163,012 71	187,859 72	188,130 26	522,477 06
	1915-16	276,846 38	270,832 14	276,498 72	218,242 79	227,187 03
	Increase	109,177 90	107,819 43	88,639 00	30,112 53	
	Decrease					295,290 03
Tobacco	1914-15	843 567 79	774,722 05	805,811 55	841,260 26	1,090,422 43
	1915-16	739,502 08	866,222 37	901,712 73	914,467 30	873,903 94
	Increase		91,500 32	95,901 18	73,207 04	
	Decrease	104,065 71				216,518 49
Cigars	1914-15	54,713 22	47,305 31	45,555 15	50,311 50	77,466 28
	1915-16	49,537 05	48,300 62	51,967 67	54,693 72	55,341 18
	Increase		995 31	6,412 52	4,382 22	
	Decrease	5,176 17				22,125 10
Manufactures in Bond	1914 15	10,225 50	9,403 43	8,364 50	8,597 16	13,613 42
	1915-16	10,749 16	6,781 38	7,229 36	9,391 15	11,779 09
	Increase	523 66			793 99	
	Decrease		2,622 05	1,135 14		1,834 33
Acetic Acid	1914-15	467 24		358 44	1,428 18	1,062 16
	1915-16	281 24	386 58	453 04	1,013 59	969 61
	Increase		386 58	94 60		
	Decrease	186 00			414 59	92 55
Seizures	1914-15	50 00	275 00	96 40		50 00
	1915-16	296 92	475 00	506 50	737 70	790 06
	Increase	246 92	200 00	410 10	737 70	740 06
	Decrease					
Other Receipts	1914-15	21,169 60	5,253 00	5,096 69	4,557 80	7,164 50
	1915-16	17,026 45	4,475 87	6,407 24	5,601 00	2,561 86
	Increase			1,310 55	1,043 20	
	Decrease	4,143 15	777 13			4,602 64
Total Revenue	1914-15	1,782,291 65	1,608,013 74	1,679,306 68	1,710,298 41	3,150,210 48
	1915-16	1,642,834 02	1,770,793 62	1,815,786 75	1,735,535 69	1,771,382 07
	Total Increase		162,779 88	136,480 07	25,237 28	
	" Decrease	139,457 63				1,378,828 41

Inland Revenue Department,
Ottawa, July 1st, 1916.

SESSIONAL PAPER No. 12

REVENUES

of Receipts for 1914-15 and 1915-16.

September.	October.	November.	December.	January.	February.	March.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
421,690 29	607,112 92	680,135 51	992,142 12	800,865 19	814,114 22	491,075 83	8,706,481 42
684,848 63	732,593 24	906,863 89	1,139,217 67	745,469 07	793,896 43	925,286 62	8,701,074 68
263,158 34	125,480 32	226,728 38	147,075 55	.....	.....	434,210 79	.....
.....	.....	.....	.....	55,456 12	20,217 79	.....	5,406 74
12,890 55	10,014 75	13,044 90	8,376 45	8,219 55	2,512 80	14,585 40	142,903 23
8,503 80	10,725 15	6,608 25	6,731 60	4,316 85	4,640 70	6,048 60	97,779 45
.....	710 40	.....	.....	.....	2,127 90	.....	.....
4,386 76	.....	6,436 65	1,644 85	3,902 76	.....	8,536 80	45,123 78
208,093 01	267,402 24	139,838 41	148,812 55	167,660 19	202,236 03	253,097 16	2,616,287 82
220,619 66	177,784 38	193,004 67	185,989 06	206,073 39	203,606 76	232,614 65	2,689,299 63
12,526 65	.....	53,166 26	37,176 51	38,413 20	1,370 73	.....	73,011 81
.....	89,617 86	.....	.....	.....	.....	20,482 51	.....
809,885 77	734,956 23	681,292 45	657,442 45	654,358 49	771,020 38	688,140 85	9,352,880 70
868,028 46	822,744 37	929,421 97	863,877 97	734,615 64	816,494 49	891,802 46	10,222,783 78
58,142 69	87,788 14	248,119 52	206,435 52	80,257 15	45,471 11	203,661 61	869,903 08
.....	.....	.....	.....	.....	.....	.....	.....
51,405 05	57,689 29	52,907 92	54,314 70	55,270 06	42,622 51	36,344 18	625,905 17
57,867 52	57,089 45	63,220 29	58,251 86	42,706 33	46,627 37	49,563 77	635,157 83
6,462 47	.....	10,312 37	3,937 16	.....	4,004 86	13,219 59	9,252 66
.....	608 81	.....	.....	12,563 73	.....	.....	.....
12,899 55	9,188 08	5,139 64	4,288 83	3,437 03	5,203 37	4,543 15	94,903 66
14,764 04	12,001 83	9,723 45	4,241 29	6,748 21	5,621 10	6,782 18	105,812 24
1,864 49	2,813 75	4,583 81	.....	3,311 18	417 73	2,239 03	10,908 58
.....	.....	.....	47 54	.....	.....	.....	.....
1,275 17	1,622 65	857 44	184 20	.....	.....	.....	7,255 48
1,254 41	1,155 83	721 47	921 22	.....	352 07	743 08	8,250 14
.....	.....	.....	737 02	.....	352 07	743 08	994 66
20 76	468 82	135 97	.....	.....	.....	.....	.....
1,001 65	266 45	78 00	752 60	25 00	203 84	1,342 40	4,141 84
1,272 14	550 00	1,439 70	1,130 20	1,061 15	1,093 17	996 85	10,349 39
270 49	283 55	1,361 70	377 60	1,036 15	889 33	.....	6,208 05
.....	.....	.....	.....	.....	.....	345 35	.....
7,244 00	4,878 20	5,653 91	3,597 25	3,115 18	3,928 50	5,611 01	77,199 94
2,944 05	4,186 11	5,616 39	6,353 42	5,814 73	10,317 47	8,944 35	80,248 94
.....	.....	.....	2,826 17	2,699 25	6,388 97	3,353 34	3,049 00
1,299 95	692 09	37 52	.....	.....	.....	.....	.....
1,526,385 04	1,663,130 81	1,578,948 18	1,869,841 15	1,692,959 99	1,841,841 65	1,491,739 98	21,027,958 76
1,860,102 71	1,818,819 36	2,116,610 08	2,266,711 29	1,746,745 37	1,882,649 66	2,123,782 84	22,250,756 08
333,717 67	125,688 55	537,661 90	396,873 14	53,794 38	40,807 91	698,042 78	2,441,083 36
.....	.....	.....	.....	.....	.....	.....	1,948,786 04

J. U. VINCENT,
Deputy Minister.

EXCISE.

Articles.	To whom paid.	Date.	Divisions.	Under what Authority Refunded.	Amounts.	Totals.
					$ cts.	$ cts.
Spirits	Heney, John J	May 25, '15	Prescott	Revised Statutes, Cap. 24, Sec. 92	14,514 49	
	Parke, Davis & Co	June 7, '15	Windsor	" " 24 " 92	136 46	
	" "	" 21, '15	"	" " 24 " 92	123 18	
	Marceau & Cie, J. A	July 12, '15	Montreal	" " 24 " 92	33 32	
	Parke, Davis & Co	Aug. 6, '15	Windsor	" " 24 " 92	213 81	
	" "	" 25, '15	"	" " 24 " 92	180 38	
	" "	Oct. 5, '15	"	" " 24 " 92	386 63	
	Heney, J. J	" 16, '15	Prescott	" " 24 " 92	9,688 14	
	Can. Bank of Commerce	" 27, '15	Sherbrooke	" " 24 " 92	1,583 50	
	J. S. Hamilton & Co	Nov. 12, '15	Brantford	" " 24 " 92	160 80	
	Parke, Davis & Co	" 20, '15	Windsor	" " 24 " 92	365 76	
	N. C. Polson & Co	Dec. 2, '15	Kingston	" " 24 " 92	80 55	
	J. S. Hamilton & Co	Jan. 11, '16	Brantford	" " 24 " 92	74 50	
	N. C. Polson & Co	" 24, '16	Kingston	" " 24 " 92	56 38	
	Parke, Davis & Co	" 25, '16	Windsor	" " 24 " 92	411 60	
	" "	Feb. 25, '16	"	" " 24 " 92	110 81	
	N. C. Polson & Co	" 25, '16	Kingston	" " 24 " 92	193 34	
	J. S. Hamilton & Co	Mar. 3, '16	Brantford	" " 24 " 92	120 00	
	Parke, Davis & Co	" 28, '16	Walkerville	" " 24 " 92	119 23	
	N. C. Polson & Co	April 25, '16	Kingston	" " 24 " 92	92 61	
	Parke, Davis & Co	" 25, '16	Walkerville	" " 24 " 92	259 71	
	J. J. Heney	May 10, '16	Prescott	" " 24 " 92	9,634 58	
						38,533 81
Malt	Drewry, Ltd., E. L	" 12, '25	Winnipeg	" " 24 " 92	216 00	
	The Hoeschen Wentzler Breweries Co., Ltd.	" 12, '15	MooseJaw	" " 24 " 92	216 00	
	The Lethbridge B. M. Co., Ltd	" 12, '15	Calgary	" " 24 " 92	463 50	
	The National Breweries, Ltd., Reg. No. 7.	" 17, '15	Montreal	" " 24 " 92	351 00	
	Thos. F. White	" 20, '15	St. Catharines	" " 24 " 92	478 72	
	Taylor & Bate	" 20, '15	"	" " 24 " 92	908 32	
	The Golden Lion Brewery Co	" 20, '15	Montreal	" " 24 " 92	495 00	
	Frontenac Breweries, Ltd	" 20, '15	"	" " 24 " 92	187 50	
	Herbert Molson	" 20, '15	"	" " 24 " 92	5,211 29	
	The National Breweries, Ltd., "Ekers B."	" 20, '15	"	" " 24 " 92	120 35	

The National Breweries, Ltd	"	20,	'15	"	"	"	"	24	"	92	120	12
The National Breweries, Ltd., "Union Brew."	"	20,	'15	"	"	"	"	24	"	92	2,337	92
The Nat. Breweries, Ltd., "Dawes."	"	20,	'15	"	"	"	"	24	"	92	118	63
The National Breweries, Ltd., "Dow."	"	20,	'15	"	"	"	"	24	"	92	5,004	85
The Canada Malting Co., Ltd.	"	20,	'15	"	"	"	"	24	"	92	13,715	61
Fernie, Fort Steele Brewing Co.	"	22,	'15	Vancouver	"	"	"	24	"	92	777	90
Canadian Brewing and Malting Co., Ltd.	"	26,	'15	"	"	"	"	24	"	92	368	04
Keith, D	June	4,	'15	Halifax	"	"	"	24	"	92	300	00
Frontenac Breweries, Ltd	"	11,	'15	Montreal	"	"	"	24	"	92	47	25
" "	"	14,	'15	"	"	"	"	24	"	92	1,206	00
The Nat. Breweries, Ltd., Reg. No. 7.	"	14,	'15	"	"	"	"	24	"	92	234	00
Nels, Nelson	"	14,	'15	Vancouver	"	"	"	24	"	92	54	00
Canadians B. & M. Co., Ltd.	"	18,	'15	"	"	"	"	24	"	92	756	00
The National Breweries, Ltd.	"	21,	'15	Montreal	"	"	"	24	"	92	4	44
Frontenac Breweries, Ltd.	"	21,	'15	"	"	"	"	24	"	92	74	52
The Kakabeka Falls Brewing Co., Ltd.	"	28,	'15	Port Arthur	"	"	"	24	"	92	30	00
The Lakewood Brewing Co.	"	28,	'15	"	"	"	"	24	"	92	7	20
The Diamond Brew. Co., Ltd.	"	28,	'15	"	"	"	"	24	"	92	31	46
Keith, D.	"	29,	'15	Halifax	"	"	"	24	"	92	207	61
Bauer, A	July	8,	'15	Guelph	"	"	"	24	"	92	167	40
The Hoffchen Wentzler Brewerier Co., Ltd.	Jan.	14,	'16	MooseJaw	"	"	"	24	"	92	54	00
The Victoria Phoenix Br. Co.	"	14,	'16	Victoria	"	"	"	24	"	92	216	00
Canadian B. & M. Co., Ltd	"	17,	'16	Vancouver	"	"	"	24	"	92	588	00
McCarthy, T. C.	"	18,	'16	Prescott	"	"	"	24	"	92	142	23
The Nat. Breweries, Ltd., Reg. No. 3.	"	21,	'16	Montreal	"	"	"	24	"	92	180	00
The Golden Lion Brewing Co	"	27,	'16	MooseJaw	"	"	"	24	"	92	87	12
Canadian B & M. Co., Ltd.	Feb.	3,	'16	Vancouver	"	"	"	24	"	92	71	55
Drewry, Ltd., E. L.	"	11,	'16	Winnipeg	"	"	"	24	"	92	432	00
The Nat. Breweries Ltd., Reg. No. 7.	"	16,	'16	Montreal	"	"	"	24	"	92	351	00
Malt Products Co. of Canada, Ltd.	"	18,	'16	Toronto	"	"	"	24	"	92	18	90
Nels, Nelson	"	19,	'16	Vancouver	"	"	"	24	"	92	54	00
The Edmonton B. & M. Co., Ltd.	"	19,	'16	Calgary	"	"	"	24	"	92	93	00
The Can. Postum Cereal Co., Ltd.	"	19,	'16	Windsor	"	"	"	24	"	92	1,539	48
Hoffchen Wentzler Brewing Co., Ltd.	Mar.	13,	'16	Saskatoon	"	"	"	24	"	92	54	00
Westminster Brewing, Ltd	"	14,	'16	New Westminster	"	"	"	24	"	92	54	00
The Nat. Breweries, Ltd., Reg. No. 7.	"	14,	'16	Montreal	"	"	"	24	"	92	351	00
Canadian B. & M. Co., Ltd.	Apr.	5,	'16	Vancouver	"	"	"	24	"	92	666	00
A. Bauer	"	7,	'16	Waterloo	"	"	"	24	"	92	84	00
Oland & Son, Ltd	"	19,	'16	Halifax	"	"	"	24	"	92	52	26
D. Keith	"	19,	'16	"	"	"	"	24	"	92	55	44
Can. B. & M. Co., Ltd	"	19,	'16	Vancouver	"	"	"	24	"	92	840	00
Nels Nelson	"	19,	'16	New Westminster	"	"	"	24	"	92	162	00
The Victoria Phoenix Brewing Co., Ltd	"	19,	'16	Victoria	"	"	"	24	"	92	216	00
The Nat. Breweries, Ltd., Reg. No. 3.	"	25,	'16	Montreal	"	"	"	24	"	92	270	00
No. 7	"	25,	'16	"	"	"	"	24	"	92	468	00
Oland & Son, Ltd	"	27,	'16	Halifax	"	"	"	24	"	92	118	11
Jos. A. Ray	May	2,	'16	Belleville	"	"	"	24	"	92	227	28

EXCISE—*Continued.*

Articles.	To whom paid.	Date.	Divisions.	Under what Authority Refunded.	Amounts.	Totals.
					$ cts.	$ cts.
Malt—*Continued*....	H. Corby Distillery Co., Ltd.....	May 2, '16	Thurlow	Revised Statutes, Cap. 24 sec. 92.....	1,482 60	
	A. Bixel.....	" 2, '16	Brantford	" " 24 " 92.....	419 55	
	The Canada Malting Co.	" 2, '16	Dundas.....	" " 24 " 92.....	216 76	
	The Hamilton Brewing Assn., Ltd...	" 2, '16	Hamilton.....	" " 24 " 92.....	2,835 00	
	Grant's Spring Brewing Co., Ltd....	" 2, '16	"	" " 24 " 92.....	2,514 87	
	Robt. Stevenson	" 2, '16	Kingston.....	" " 24 " 92	240 00	
	John Fisher	" 2, '16	Portsmouth. ...	" " 24 " 92..	220 57	
	Jos. Hamilton	" 2, '16	London.....	" " 24 " 92.....	145 91	
	T. H. Carling.....	" 2, '16	"	" " 24 " 92.....	2,653 38	
	Estate John Labatt.....	" 2, '16	"	" " 24 " 92	2,811 50	
	Geo. Cloos.....	" 2, '16	St. Thomas.....	" " 24 " 92.....	468 00	
	The Capital Brewing Co., Ltd.....	" 2, '16	Ottawa.....	" " 24 " 92.....	1,147 21	
	Blake & Dunne.....	" 2, '16	"	" " 24 " 92	125 40	
	Sudbury B. & M. Co., Ltd.....	" 2, '16	Sudbury.....	" " 24 " 92	2,790 00	
	The Calcutt Brewing & Malting Co..	" 2, '16	Peterborough	" " 24 " 92.....	581 25	
	Diamond Brewing Co., Ltd.....	" 2, '16	Port Arthur	" " 24 " 92.....	525 —	
	The Kakabeka Falls Brewing Co., Ltd.	" 2, '16	Fort William.. ...	" " 24 " 92	690 —	
	The Lakewood Brewery Co.	" 2, '16	Kenora.....	" " 24 " 92.....	93 66	
	J. P. Wiser & Sons, Ltd.....	" 2, '16	Prescott	" " 24 " 92.....	269 81	
	St. Lawrence Brewery, Ltd	" 2, '16	Cornwall.....	" " 24 " 92.....	2,662 45	
	John Watson.....	" 2, '16	Listowell	" " 24 " 92	162 80	
	F. Devlin.....	" 2, '16	Stratford	" " 24 " 92	250 52	
	Soo Falls Brewing Co., Ltd.....	" 2, '16	Sault Ste Marie...	" " 24 " 92.....	867 78	
	The Korrmann Brewery, Ltd.....	" 2, '16	Toronto	" " 24 " 92.....	144 57	
	L. Reinhardt	" 2, '16	"	" " 24 " 92.....	1,687 20	
	Copland Brewing Co., Ltd.....	" 2, '16	"	" " 24 " 92.....	3,290 40	
	The Dominion Brewery Co., Ltd....	" 2, '16	Toronto.....	" " 24 " 92.....	3,849 17	
	The Cosgrove Brewery Co., Ltd....	" 2, '16	"	" " 24 " 92	4,217 10	
	The O'Keefe Brewery Co., Ltd.....	" 2, '16	"	" " 24 " 92.....	5,931 00	
	Hiram Walker & Sons, Ltd..	" 2, '16	Walkerville.....	" " 24 " 92.....	550 50	
	The Walkerville Brewing Co., Ltd....	" 2, '16	"	" " 24 " 92	1,455 04	
	A. L. Irion	" 2, '16	Windsor.....	" " 24 " 92.....	1,012 50	
	The Independent Brewery Co., Ltd..	" 2, '16	Montreal.....	" " 24 " 92.....	240 75	
	Frontenac Breweries, Ltd.....	" 2, '16	"	" " 24 " 92.....	866 40	
	Golden Lion Brewery, Ltd.....	" 2, '16	Valleyfield.	" " 24 " 92	405 00	
	The National Breweries, Ltd.....	" 2, '16	Lachine.....	" " 24 " 92.....	1,529 30	

National Breweries, Ltd., Wm. Dow Co	"	2,	'16	Montreal	"	"	24	"	92	5,130	32
Herbert Molson	"	2,	'16	"	"	"	24	"	92	9,657	58
The Canada Malting Co., Ltd	"	2,	'16	"	"	"	24	"	92	19,084	37
The National Breweries, Ltd., Boswells Brewery	"	2,	'16	Quebec	"	"	24	"	92	255	29
La Brasserie Champlain, Ltd	"	2,	'16	"	"	"	24	"	92	2,511	00
St. Hyacinthe Distilling Co., Ltd	"	2,	'16	St. Hyacinthe	"	"	24	"	92	119	52
La Brasserie J. M. Spenard, Ltd	"	2,	'16	Three Rivers	"	"	24	"	92	246	90
Stanley Jones, Ltd	"	2,	'16	St. John	"	"	24	"	92	480	00
Ready's Breweries, Ltd	"	2,	'16	Fairville	"	"	24	"	92	1,290	00
Oland & Son, Ltd	"	2,	'16	Halifax	"	"	24	"	92	729	00
Halifax Breweries, Ltd	"	2,	'16	"	"	"	24	"	92	1,351	27
D. Keith	"	2,	'16	"	"	"	24	"	92	2,673	00
The Brandon Brewing Co., Ltd	"	2,	'16	Brandon	"	"	24	"	92	377	10
The Empire Brewing Co., Ltd	"	2,	'16	"	"	"	24	"	92	527	30
The Rice Malting Co. of Canada	"	2,	'16	St. Boniface	"	"	24	"	92	571	32
The Canadian Temperance Brewing Co., Ltd	"	2,	'16	Winnipeg	"	"	24	"	92	4	55
E. L. Drewry, Ltd	"	2,	'16	"	"	"	24	"	92	308	33
The Canada Malting Co., Ltd	"	2,	'16	"	"	"	24	"	92	7,465	24
Moose Jaw B. & M. Co., Ltd	"	2,	'16	Moose Jaw	"	"	24	"	92	307	80
Golden Lion Brewing Co., Ltd	"	2,	'16	Prince Albert	"	"	24	"	92	233	76
Regina Brewing Co	"	2,	'16	Regina	"	"	24	"	92	240	00
The Hoeschen Wentzler Bg. Co., Ltd	"	2,	'16	Saskatoon	"	"	24	"	92	255	00
Golden West Brewing Co., Ltd	"	2,	'16	Calgary	"	"	24	"	92	207	00
Mountain Spring Brewing Co., Ltd	"	2,	'16	"	"	"	24	"	92	806	33
Canada Malting Co., Ltd	"	2,	'16	"	"	"	24	"	92	1,057	47
Calgary B. & M. Co., Ltd	"	2,	'16	"	"	"	24	"	92	4,005	09
The Edmonton B. & M. Co., Ltd	"	2,	'16	Edmonton	"	"	24	"	92	600	00
The Strathcona B. & M. Co., Ltd	"	2,	'16	"	"	"	24	"	92	706	50
The Lethbridge B. & M. Co., Ltd	"	2,	'16	Lethbridge	"	"	24	"	92	1,155	00
Medicine Hat Brewing Co., Ltd	"	2,	'16	Medicine Hat	"	"	24	"	92	194	25
The Berlin Lion Brewery, Ltd	"	2,	'16	Berlin	"	"	24	"	92	1,379	10
Wm. H. Lotz	"	2,	'16	Galt	"	"	24	"	92	124	79
Jos. Sherman	"	2,	'16	Guelph	"	"	24	"	92	37	50
	"	2,	'16	"	"	"	24	"	92	38	10
W. R. Holliday	"	2,	'16	"	"	"	24	"	92	757	76
Mary Ruse	"	2,	'16	New Hamburg	"	"	24	"	92	241	40
E. F. Bernardi	"	2,	'16	Preston	"	"	24	"	92	256	80
J. E. Seagram	"	2,	'16	Waterloo	"	"	24	"	92	153	81
A. Hauser	"	2,	'16	"	"	"	24	"	92	4,113	03
Wilson Leslie Hodgetts Co., Ltd	"	10,	'16	Toronto	"	"	24	"	92	1,000	54
J. F. Wiser & Sons, Ltd	"	10,	'16	Prescott	"	"	24	"	92	820	89
The Congress Brewery Co., Ltd	"	10,	'16	Toronto	"	"	24	"	92	197	70
Silver Spring Brewery, Ltd	"	10,	'16	Sherbrooke	"	"	24	"	92	861	53
The National Breweries Ltd., Reg. No. 5	July	19,	'16	Montreal	"	"	24	"	92	270	00
The National Breweries, Ltd., Reg. No. 7	"	19,	'16	"	"	"	24	"	92	351	00

EXCISE—*Continued.*

Articles.	To whom paid.	Date.	Divisions.	Under what Authority Refunded.	Amounts.	Totals.
					$ cts.	$ cts.
Malt—*Continued*....	Drewry, Ltd., E. L.	July 19, '16	Winnipeg	Revised Statutes, Cap. 24 sec. 92	432 00	
	Hoeschen Wentzler Brewing Co.,Ltd.	" 19, '16	MooseJaw	" " 24 " 92	162 00	
	Nels, Nelson	" 19, '16	Vancouver	" " 24 " 92	60 00	
	The Victoria Phœnix Brewing Co., Ltd	" 19, '16	Victoria	" " 24 " 92	342 00	
	Canada B. & M. Co	" 31, '16	Vancouver	" " 24 " 92	1,055 46	
	Frontenac Brewing Co	" 31, '16	Montreal	" " 24 " 92	2 28	
	Frontenac Breweries, Ltd	Aug. 13, '16	"	" " 24 " 92	62 40	
	Keith, D	" 20, '16	Halifax	" " 24 " 92	4 41	
	Keith, D	" 20, '16	"	" " 24 " 92	15 67	
	Oland & Son	" 20, '16	"	" " 24 " 92	28 08	
	The National Breweries, Ltd., Reg. No. 7	" 20, '16	Montreal	" " 24 " 92	351 00	
	Drewry Ltd., E. L	" 20, '16	Winnipeg	" " 24 " 92	216 00	
	The Hoeschen Wentzler Brewing Co., Ltd	" 20, '16	MooseJaw	" " 24 " 92	54 00	
	Canadian B. & M. Co., Ltd	" 20, '16	Vancouver	" " 24 " 92	813 09	
	Nels, Nelson	" 20, '16	"	" " 24 " 92	30 00	
	Frontenac Breweries, Ltd	" 25, '16	Montreal	" " 24 " 92	4 35	
	" "	" 30, '16	"	" " 24 " 92	31 05	
	The Berlin Lion Brewery, Ltd	Sept. 7, '16	Guelph	" " 24 " 92	235 26	
	The National Breweries, Ltd., Reg. No. 3	" 14, '16	Montreal	" " 24 " 92	270 00	
	The National Breweries, Ltd., Reg. No. 7	" 14, '16	"	" " 24 " 92	468 00	
	Drewry, E. L	" 14, '16	Winnipeg	" " 24 " 92	432 00	
	The Hoeschen Wentzler Brew. Co., Ltd	" 14, '16	MooseJaw	" " 24 " 92	48 00	
	Canadian B. & M. Co., Ltd	" 20, '16	Vancouver	" " 24 " 92	1,371 81	
	Carling, F. H	" 21, '16	London	" " 24 " 92	88 71	
	Keith, D	" 21, '16	Halifax	" " 24 " 92	4 89	
	The National Breweries Ltd., Reg. No. 3	" 24, '16	Montreal	" " 24 " 92	90 00	
	Diamond Brewing Co., Ltd	Oct. 4, '16	Port Arthur	" " 24 " 92	84 00	
	The Lethbridge B. & M. Co., Ltd	" 12, '16	Calgary	" " 24 " 92	1,110 00	
	Nels, Nelson	" 15, '16	Vancouver	" " 24 " 92	30 00	

Canadian B. & M. Co., Ltd	"	16,	'16	"	"	"	"	"	24	"	92	504 00					
Keith & Son, A	"	20,	'16	Halifax	"	"	"	"	24	"	92	11 97					
National Breweries, Ltd	"	20,	'16	Montreal	"	"	"	"	24	"	92	234 00					
Victoria Phœnix Brewing Co	"	20,	'16	Victoria	"	"	"	"	24	"	92	324 00					
Phœnix Brewing Co	Nov.	12,	'16	Vancouver	"	"	"	"	24	"	92	72 54					
Keith, D	"	12,	'16	Halifax	"	"	"	"	24	"	92	2 67					
National Breweries Co., Ltd	"	22,	'16	Montreal	"	"	"	"	24	"	92	90 00					
" "	"	22,	'16	"	"	"	"	"	24	"	92	90 00					
" "	"	22,	'16	"	"	"	"	"	24	"	92	585 00					
Drewry, Ltd., E. L	"	22,	'16	Winnipeg	"	"	"	"	24	"	92	216 00					
The Hoeschen Wentzler Brewery Co	"	22,	'16	Moosejaw	"	"	"	"	24	"	92	54 00					
Nels, Nelson	"	22,	'16	Vancouver	"	"	"	"	24	"	92	54 00					
Canadian B. & M. Co., Ltd	"	22,	'16	"	"	"	"	"	24	"	92	2,011 59					
The Malt Products Co. of Can., Ltd	Dec.	6,	'16	Toronto	"	"	"	"	24	"	92	50 00					
Canadian B. & M. Co., Ltd	"	10,	'16	Vancouver	"	"	"	"	24	"	92	98 40					
The National Breweries, Ltd., Reg. No. 7	"	17,	'16	Montreal	"	"	"	"	24	"	92	351 00					
Drewry, Ltd., E. L	"	17,	'16	Winnipeg	"	"	"	"	24	"	92	216 00					
Nels, Nelson	"	17,	'16	Vancouver	"	"	"	"	24	"	92	108 00					
Canadian B. & M. Co., Ltd	"	17,	'16	"	"	"	"	"	24	"	92	924 00					
Drewry, Ltd., E. L	Jan.	12,	'16	Winnipeg	"	"	"	"	24	"	92	216 00					
Wilson Lyttle Badgerow Co., Ltd	"	14,	'16	Toronto	"	"	"	"	24	"	92	1,058 08					
The National Breweries, Ltd., Reg. No. 7	"	14,	'16	Montreal	"	"	"	"	24	"	92	468 00					
Tobacco — The Empire Tob. Co., of Imperial Tob. Co., Ltd	June	2,	'15	Sherbrooke	"	"	"	"	24	"	92	142 10	179,798 90				
Merchants Storage Co., Ltd	"	4,	'15	Toronto	"	"	"	"	24	"	92	1 00					
The Empire Tob. Co., Brch. of Imperial	"	5,	'15	Sherbrooke	"	"	"	"	24	"	92	112 77					
Imperial Tob. Co., of Canada, Ltd	"	12,	'15	Montreal	"	"	"	"	24	"	92	264 59					
Imperial Tobacco Co	July	31,	'15	Sherbrooke	"	"	"	"	24	"	92	22 60					
Imperial Tob. Co., of Canada, Ltd	Aug.	12,	'15	Montreal	"	"	"	"	24	"	92	173 77					
The Empire Tob. Co., Brch. of Imperial	Sept.	7,	'15	Sherbrooke	"	"	"	"	24	"	92	217 63					
" "	"	10,	'15	"	"	"	"	"	24	"	92	84 00					
Imperial Tob. Co., Ltd	"	14,	'15	Montreal	"	"	"	"	24	"	92	17 82					
The Empire Tob. Co., Brch. of Imperial	Oct.	4,	'15	Sherbrooke	"	"	"	"	24	"	92	90 36					
M. Melachrino & Co., Ltd	"	5,	'15	Montreal	"	"	"	"	24	"	92	18 04					
Imperial Tob. Co., Ltd	"	5,	'15	"	"	"	"	"	24	"	92	75 81					
" "	"	14,	'15	"	"	"	"	"	24	"	92	46 10					
Imperial Tobacco Co	Nov.	12,	'15	Sherbrooke	"	"	"	"	24	"	92	84 00					
The Empire Tob. Co., Brch. of Imperial	Dec.	1,	'15	"	"	"	"	"	24	"	92	176 60					
Imperial Tob. Co., Ltd	"	16,	'15	Montreal	"	"	"	"	24	"	92	55 54					
The Empire Tob. Co., Brch. of Imperial	"	23,	'15	Sherbrooke	"	"	"	"	24	"	99	204 96					
M. Melachrino & Co., Ltd	Jan.	12,	'16	Montreal	"	"	"	"	24	"	92	12 81					
Imperial Tob. Co., Ltd	"	12,	'16	"	"	"	"	"	24	"	92	124 02					
The Empire Tob. Co., Brch. of Imperial	"	24,	'16	Sherbrooke	"	"	"	"	24	"	92	204 87					
The Dominion Tobacco Co	Feb.	24,	'15	Montreal	"	"	"	"	24	"	92	9 00					
"	Mar.	17,	'16	"	"	"	"	"	24	"	92	20 80					
Imperial Tob. Co., of Canada, Ltd	"	17,	'16	"	"	"	"	"	24	"	92	21 78					

No. 15.—Refunds of Revenues—*Continued.*

EXCISE—*Continued.*

Articles.	To whom paid.	Date.	Divisions.	Under what Authority Refunded.	Amounts.	Totals.
					$ cts.	$ cts.
Tobacco—*Concluded.*	The Empire Tob. Co., Brch. of Imperial	Mar. 28, '16	Granby.	Revised Statutes, Cap. 24 Sec. 92	838 74	
	Imperial Tob. Co., of Canada, Ltd.	April 10, '16	Montreal.	" " 24 " 92	23 08	
	The Empire Tob. Co., Brch. of Imperial	" 19, '16	Granby	" " 24 " 92	54 88	
						3,097 70
Cigars	Imperial Tob. Co., Ltd	July 16, '15	Montreal.	" " 24 " 92	3 00	
	" "	Aug. 12, '15	"	" " 24 " 92	0 75	
	Geo. E. Dwyer.	Sept. 10, '15	London.	" " 24 " 92	33 33	
	The Victor Cigar Co	Oct. 21, '15	Port Arthur	" " 24 " 99	1 50	
	Geo. E. Dwyer	Nov. 12, '15	Toronto	" " 24 " 92	41 66	
	Imperial Tob. Co., Ltd	Dec. 16, '15	Montreal.	" " 24 " 92	27 75	
						107 99
Officer's Salary	Taylor & Pringle Co., Ltd	May 25, '16	Owen Sound	" " 24 " 92	250 00	
	The British Columbia Distillery Co., Ltd	" 17, '16	Vancouver.	" " 24 " 92	300 00	
	S. Allen, Ltd	" 17, '16	Norwich.	" " 24 " 92	300 00	
	Dominion Vinegar Works Co.	" 17, '16	Hamilton.	" " 24 " 92	300 00	
	Thos. McCreany & Son, Ltd.	" 17, '16	St. John.	" " 24 " 92	300 00	
						1,450 00
Sundries	National Drug & Chemical Co., Ltd.	July 19, '15	Montreal.	" " 24 " 92	4 00	
	J. Mueller	Oct. 29, '15	MooseJaw	" " 24 " 92	25 00	
	Jas. A. Smith	" 29, '15	"	" " 24 " 92	29 16	
	Dangerfield & Sons	" 29, '15	"	" " 24 " 92	29 16	
	MooseJaw liquor Store	" 29, '15	"	" " 24 " 92	29 16	
	Gold Coin Liquor Store	" 29, '15	"	" " 24 " 92	29 16	
	The Western Commercial Co., Ltd	" 29, '15	"	" " 24 " 92	29 16	
	" "	" 29, '15	"	" " 24 " 92	29 16	
	Saskatoon Liquor Co	" 29, '15	"	" " 24 " 92	29 16	
	E. Foret	" 29, '15	"	" " 24 " 92	33 33	
	Wm. Paterson	" 29, '15	"	" " 24 " 92	33 33	
	Bertin & Webster	" 29, '15	"	" " 24 " 92	33 33	
	H. M. Hillman	" 29, '15	"	" " 24 " 92	33 33	
	Prince Albert Liquor Co., Ltd	" 29, '15	"	" " 24 " 92	33 33	
	Robinson & Walsh	" 29, '15	"	" " 24 " 92	33 33	
	Wesley Rowsom	" 29, '15	"	" " 24 " 92	37 50	

	John Sears	"	29,	'15	"	"	"	"	24	"	92	37	50		
	Canadian Explosives, Ltd	Jan.	11,	'16	Montreal	"	"	"	24	"	92	25	00		
		Mar.	3,	'16	"	"	"	"	24	"	92	25	00		
														558	10
12 — 8	War Tax														
	W. A. D. Baby	July	13,	'15	Hamilton	"	"	"	24	"	92	25	00		
	Ottawa Wine Vaults Co., Ltd	Aug.	9,	'15	Ottawa	"	"	"	24	"	92	13	74		
	M. Cummings	"	9,	'15	Hamilton	"	"	"	24	"	92	25	20		
	Jas. Turner & Co., Ltd	"	9,	'15	"	"	"	"	24	"	92	7	80		
	J. J. Walsh	"	9,	'15	"	"	"	"	24	"	92	9	55		
	John O. Carpenter	"	9,	'15	"	"	"	"	24	"	92	9	80		
	Kelley & Glassey	"	9,	'15	Halifax	"	"	"	24	"	92	5	60		
	Pacific Liquor Co	"	9,	'15	"	"	"	"	24	"	92	8	60		
	British Columbia Wine Co., Ltd	"	9,	'15	Vancouver	"	"	"	24	"	92	9	60		
	Hughes Bros	"	9,	'15	"	"	"	"	24	"	92	8	60		
	United Brothers Ass., Ltd	"	9,	'15	"	"	"	"	24	"	92	42	80		
	F. H. Drake	"	9,	'15	Brantford	"	"	"	24	"	92	17	60		
	Scandrett Bros	"	9,	'15	London	"	"	"	24	"	92	39	10		
	Donald Fraser	"	9,	'15	"	"	"	"	24	"	92	2	20		
	J. S. Hamilton & Co	"	9,	'15	Brantford	"	"	"	24	"	92	51	00		
	C. R. Sutton		9,	'15	"	"	"	"	24	"	92	17	30		
	E. Hebert		9,	'15	Montreal	"	"	"	24	"	92	53	95		
	Maurice Durracq	"	9,	'15	"	"	"	"	24	"	92	9	60		
	Gravel Freres	"	9,	'15	"	"	"	"	24	"	92	28	20		
	Place Viger Hotel	"	9,	'15	"	"	"	"	24	"	92	10	00		
	John Allan & Co	"	9,	'15	"	"	"	"	21	"	92	1	00		
	O. Desjardins	"	9,	'15	"	"	"	"	21	"	92	4	00		
	Gendron & Co	"	9,	'15	"	"	"	"	24	"	92	8	00		
	J. R. Lefebvre	"	9,	'15	"	"	"	"	24	"	92	7	85		
	S. B. Townsend	"	9,	'15	"	"	"	"	24	"	92	4	90		
	J. C. Barbeau	"	9,	'15	"	"	"	"	21	"	92	3	60		
	James Garneau	"	9,	'15	"	"	"	"	24	"	92	1	40		
	A. Marsolais	"	9,	'15	"	"	"	"	24	"	92	10	60		
	Hudson's Bay Co	"	9,	'15	Victoria	"	"	"	21	"	92	63	70		
		"	9,	'15	Winnipeg	"	"	"	21	"	92	67	90		
		"	9,	'15	Calgary	"	"	"	24	"	92	7	30		
	Vancouver Imp'g, Wine & Liq. Co., Ltd	"	9,	'15	Victoria	"	"	"	24	"	92	8	40		
	Duncan & Gray	"	9,	'15	"	"	"	"	24	"	92	8	70		
	Bellerose & Co	"	9,	'15	Winnipeg	"	"	"	24	"	92	52	80		
	Winnipeg Wine Co	"	11,	'15	"	"	"	"	24	"	92	39	45		
	W. J. Sinnerman	"	11,	'15	"	"	"	"	24	"	92	49	10		
	John O. Carpenter	"	11,	'15	Hamilton	"	"	"	24	"	92	5	80		
	Henry Taylor	"	11,	'15	"	"	"	"	24	"	92	38	40		
	A. Blezard	"	11,	'15	Winnipeg	"	"	"	24	"	92	7	20		
	British Columbia Wine Co., Ltd	"	11,	'15	Vancouver	"	"	"	24	"	92	5	80		
	Hughes Bros	"	11,	'15	London	"	"	"	24	"	92	4	30		
	O. Marcoux	"	11,	'15	Ottawa	"	"	"	24	"	92	18	30		
	Manitoba Liquor Store	"	11,	'15	Winnipeg	"	"	"	24	"	92	8	40		
	Paul Sadia	"	11,	'15	"	"	"	"	24	"	92	8	85		
	Repstein & Co	"	11,	'15	"	"	"	"	24	"	92	16	00		

EXCISE—*Continued.*

Articles.	To whom paid.	Date.	Division.	Under what Authority Refunded.	Amounts.	Totals.
					$ cts.	$ cts.
War Tax—*Con.*	The National Drug & Chemical Co.	Aug. 11, '15	Winnipeg	Revised Statutes, Cap. 24, Sec. 92	5 50	
	Weselake & Hrabi	" 11, '15	"	" " 24 " 92	23 50	
	A. Roszko	" 11, '15	"	" " 24 " 92	7 90	
	Quality Liquor Store	" 11, '15	"	" " 24 " 92	24 65	
	E. J. Peltier	" 11, '15	"	" " 24 " 92	7 50	
	L. S. Guay	" 12, '15	Montreal	" " 24 " 92	8 40	
	McCaig & Campbell	" 12, '15	Winnipeg	" " 24 " 92	7 20	
	F. L. Newman	" 12, '15	"	" " 24 " 92	18 40	
	Thos. Jordon	" 12, '15	"	" " 24 " 92	4 00	
	Buchwald & Gorman	" 12, '15	"	" " 24 " 92	38 80	
	J. W. Handley	" 12, '15	Halifax	" " 24 " 92	8 00	
	Kelly & Glassey	" 12, '15	"	" " 24 " 93	31 60	
	W. L. Roy	" 12, '15	Toronto	" " 24 " 92	8 60	
	F. H. Shmidt	" 12, '15	"	" " 24 " 92	7 30	
	Victoria Vancouver Island Wine Co.	" 12, '15	Victoria	" " 24 " 92	5 65	
	Pacific Liquor Co	" 12, '15	Vancouver	" " 24 " 92	26 20	
	M. Cummings	" 12, '15	Hamilton	" " 24 " 92	14 75	
	J. O. Patterson	" 12, '15	Toronto	" " 24 " 92	8 00	
	Canadian Wine Co	" 12, '15	"	" " 24 " 92	38 90	
	Nectar Mfg. Co	" 12, '15	Stratford	" " 24 " 92	21 60	
	Thos. Jordon	" 12, '15	Winnipeg	" " 24 " 92	20 20	
	Niagara Falls Wine Co	" 13, '15	Toronto	" " 24 " 92	233 00	
	Magnan & Chevalier	" 12, '15	Joliette	" " 24 " 92	124 00	
	Chevalier Pouliot & Co	" 12, '15	"	" " 24 " 92	714 95	
	Niagara Falls Wine Co	" 12, '15	Montreal	" " 24 " 92	132 60	
	Hudon & Orsali, Ltd	" 12, '15	"	" " 24 " 92	39 00	
	T. G. Bright & Co	" 12, '15	St. Catharines	" " 24 " 92	7 60	
	P. H. Theoret	" 12, '15	Montreal	" " 24 " 92	15 00	
	Fraser, Viger & Co., Ltd	" 12, '15	"	" " 24 " 92	25 20	
	Gillespie & Co	" 12, '15	"	" " 24 " 92	5 20	
	Wine & Spirits Vaults, Ltd	" 12, '15	Winnipeg	" " 24 " 92	40 65	
	Buckwald & Gorman	" 12, '15	"	" " 24 " 92	222 90	
	T. G. Bright & Co.	" 12, '15	St. Catharines	" " 24 " 92	3 40	
	E. J. Butler	" 12, '15	London	" " 24 " 92	16 00	
	Hudson's Bay Co.	" 12, '15	Winnipeg	" " 24 " 92	11 20	
	H. Dionne Fils & Co	" 12, '15	Montreal	" " 24 " 92	11 80	

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EXCISE—*Continued.*

Articles.	To whom paid.	Date.	Divisions.	Under what Authority Refunded.	Amounts.	Totals.
					$ cts.	$ cts.
War Tax—*Con.*	Chas. E. White	Oct. 21, '15	Moose Jaw	Revised Statutes, Cap. 24, Sec. 92	11 20	
	J. H. Abish	" 21, '15	"	" " 24 " 92	2 05	
	Bertin & Webster	" 21, '15	"	" " 24 " 92	57 00	
	Braithwaite & Steele	" 21, '15	"	" " 24 " 92	1 20	
	J. Maguire & Sons	" 21, '15	"	" " 24 " 92	6 25	
	P. H. Green	" 21, '15	"	" " 24 " 92	2 40	
	Sutherland & Waite	" 21, '15	"	" " 24 " 92	0 40	
	W. Rowson	" 21, '15	"	" " 24 " 92	6 60	
	Anglo Canadian Hotels, Ltd	" 21, '15	"	" " 24 " 92	81 95	
	G. H. Kingsley	" 21, '15	"	" " 24 " 92	4 90	
	Dangerfield & Sons	" 21, '15	"	" " 24 " 92	33 05	
	J. Hoheisel	" 21, '15	"	" " 24 " 92	5 15	
	W. G. Pearce	" 27, '15	"	" " 24 " 92	25 00	
	Corporal Howard	Nov. 19, '15	"	" " 24 " 92	25 00	
	The Stamford Park Wine Co., Ltd	Dec. 6, '15	St. Catharines	" " 24 " 92	341 00	
	R. Watson	" 6, '15	Brantford	" " 24 " 92	18 00	
	Chas. Caulson	" 6, '15	"	" " 24 " 92	27 40	
	E. C. Andrick	" 6, '15	"	" " 24 " 92	14 90	
	Jas. McPharland	" 6, '15	Kingston	" " 24 " 92	17 60	
	John F. Mallon	" 6, '15	Toronto	" " 24 " 92	10 20	
	J. B. Milligan	" 6, '15	"	" " 24 " 92	7 60	
	J. M. Givin, Ltd	" 6, '15	"	" " 24 " 92	8 20	
	Kelly & Glassey	Dec. 6 '15	Halifax	" " 24 " 92	5 60	
	Quality Liquor Store	" 6 '15	Winnipeg	" " 24 " 92	8 20	
	Pereles & Genask	" 6 '15	"	" " 24 " 92	26 90	
	Beliveau & Co	" 6 '15	"	" " 24 " 92	15 10	
	Selkirk Wine & Spirit Co	" 6 '15	"	" " 24 " 92	8 00	
	Belliveau & Coy	" 6 '15	"	" " 24 " 92	21 15	
	Hudson's Bay Co	" 6 '15	Victoria	" " 24 " 92	3 50	
	W. Beatty	" 6 '15	MooseJaw	" " 24 " 92	2 80	
	Sam Bakofsky	" 6 '15	"	" " 24 " 92	2 65	
	Hotel Kennedy	" 6 '15	"	" " 24 " 92	15 55	
	H. Broufman	" 6 '15	"	" " 24 " 92	15 90	
	The Avenue Hotel	" 6 '15	"	" " 24 " 92	7 95	
	J. L. Lamant	" 6 '15	"	" " 24 " 92	1 00	

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EXCISE—*Concluded.*

Articles.	To whom paid.	Date.	Division.	Under what Authority Refunded.	Amounts.	Totals.
					$ cts.	$ cts.
War Tax—*Con.*	Comeau & Sheeham	April 13 '16	St. John	Revised Statutes, Cap. 24 Sec. 92	87 20	
	White Star Dominion Line	" 13 '16	Montreal	" " 24 " 92	5 00	
						11,761 39
W. & M. Inspection Fees	J. W. Costello	May 25 '16	Calgary	" " 24 " 92	7 00	7 00
Gas	H. Fraser for T. Rork	Nov. 22 '16	Peterborough	" " 21 " 92	3 00	3 00
						235,317 26

RECAPITULATION.

EXCISE REFUNDS.

Spirits	$ 38,533 81	
Malts	179,798 90	
Tobacco	3,097 07	
Cigars	107 99	
Officer's Salary	1,450 00	
Sundries	558 10	
		$ 223,545 87
War Tax		11,761 39
W. & M.		7 00
Gas		3 00
Grand Total		$ 235,317 26

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

No. 16.—DEPARTMENTAL EXPENDITURES FOR 1915-1916.

Dr. Due by sundry persons, April 1, 1915.	Disbursed by the Receiver General.	Deductions for Superannuation.	Deductions for Insurance.	Deductions for Retirement.	Totals.		Cr. Salaries.	Contingencies.	Due by sundry persons, March 31, 1916.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.
	7,000 00				7,000 00	Minister of Inland Revenue	7,000 00			7,000 00
	117,583 17	491 41	754 49	4,575 21	123,404 28	Departmental officers	123,404 28			123,404 28
	438 73				438 73	Subscription to newspapers		438 73		438 73
	4,037 14				4,037 14	Extra clerks		4,037 14		4,037 14
	429 88				429 88	Telegraph companies		429 88		429 88
	995 80				995 80	Books and Parliamentary publications		995 80		995 80
	3,574 03				3,574 03	Stationery		3,574 03		3,574 03
	4,471 21				4,471 21	Printing		4,471 21		4,471 21
	5,850 26				5,850 26	Sundry persons		5,850 26		5,850 26
16 66					16 66	Balance due			16 66	16 66
16 66	144,390 22	491 41	754 49	4,575 21	$ 150,217 99	Totals	$ 130,404 28	$ 19,797 05	$16 66	$ 150,217 99

Inland Revenue Department,
Ottawa, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

WEIGHTS AND MEASURES, GAS, ELECTRIC LIGHT AND LAW STAMPS.

No. 17.—STATEMENT showing amount of Revenue accrued during the year ended March 31, 1916.

DR.

	Weights and Measures Stamps.	Gas Stamps.	Electric Light Stamps.	Law Stamps.			Totals.
				Supreme Court.	Exchequer Court.	Territorial Court.	
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
The amount of stamps in the hands of distributors, April 1, 1915.....	157,449 40	77,188 00	126,739 10	53 05	88 00	7,008 20	368,525 75
To stamps issued by the Inland Revenue Department during the year ended March 31, 1916..	107,125 00	45,885 00	53,710 00	2,900 00	6,197 75	2,000 00	217,817 75
Totals	264,574 40	123,073 00	180,449 10	2,953 05	6,285 75	9,008 20	586,343 50

CR.

By amount of stamps destroyed and returned by distributors.....	104 55	4,203 55	3 00				4,311 10
By amount of stamps remaining in the hands of distributors, March 31, 1916	153,739 05	72,834 65	110,394 35	149 05	105 00	6,472 80	343,694 90
By balance being the revenue during the year ended March 31, 1916	110,730 80	46,034 80	70,051 75	2,804 00	6,180 75	2,535 40	238,337 50
Totals	264,574 40	123,073 00	180,449 10	2,953 05	6,285 75	9,008 20	586,343 50

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

WEIGHTS AND MEASURES, 1915-16.

DR. — No. 18 (A).—INSPECTION DIVISIONS in Account with Revenue. — CR.

Balances due by Inspectors, April 1, 1915.		Stamps issued to Inspectors.	Other Receipts.	Seizures and Penalties.	Totals.	Divisions.	Returned Damaged Stamps.	Deposited to Credit of Receiver General.	Balances due by Inspectors, March 31, 1916.		Totals.
Stamps on hand.	Cash on hand.								Stamps on hand.	Cash on hand.	
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
4,345 85		6,830 00	18 00	5 00	11,198 85	Belleville		3,398 80	7,799 25	0 80	11,198 85
6,272 45	108 10	10,655 00			17,035 50	Hamilton		10,642 30	6,393 20		17,035 50
1,097 65		2,805 00		2 00	3,904 65	Kingston		3,489 45	414 60		3,904 05
9,881 75		8,375 00			18,256 75	London		9,777 45	8,479 30		18,256 75
4,699 30		7,850 00		15 00	14,564 30	Ottawa	33 30	7,600 15	6,930 85		14,564 30
4,713 15		10,580 00		80 00	17,323 15	Toronto		11,866 00	5,457 15		17,323 15
34,339 50	108 10	47,115 00	18 00	102 00	82,282 60	*Ontario*	33 30	46,774 15	35,471 35	0 80	82,282 60
65,158 10		5,300 00	2 00		70,430 10	Montreal		12,922 95	57,506 15	1 00	70,430 10
3,460 70		5,965 00		5 00	9,829 70	Quebec	0 15	5,608 65	4,220 90		9,829 70
4,770 50		7,650 00			12,420 50	Sherbrooke		5,678 30	6,742 20		12,420 50
4,381 00		150 00			4,531 90	St. Hyacinthe		1,697 60	2,834 30		4,531 90
3,213 20		1,745 00			4,958 20	Three Rivers		2,599 95	2,358 25		4,958 20
81,523 40		20,810 00	2 00	5 00	102,170 40	*Quebec*	0 15	28,507 45	73,661 80	1 00	102,170 40
493 70		2,419 00			2,913 70	*St. John, N.B.*		2,319 15	594 55		2,913 70
3,527 70	30 00	255 00			3,828 70	Halifax		1,189 35	2,603 35	36 00	3,828 70
3,400 65		1,720 00	8 00		4,127 65	Pictou		1,719 30	2,707 85	0 50	4,427 65
6,928 35	30 00	1,975 00	8 00		8,256 35	*Nova Scotia*		2,908 65	5,311 20	36 50	8,256 35
408 30		840 00			1,248 30	*Charlottetown, P.E.I.*		343 30	902 50	2 50	1,248 30
12,881 70		3,090 00			15,971 70	*Winnipeg, Man.*	0 45	9,640 55	6,330 70		15,971 70

WEIGHTS AND MEASURES, 1915-16.

DR. No. 18 (A.)—INSPECTION DIVISIONS in Account with Revenue. CR.

Balances due by Inspectors, April 1, 1914.		Stamps issued to Inspectors.	Other Receipts.	Seizures and Penalties.	Totals.	Divisions.	Damaged Stamps.	Deposited to Credit of Receiver General.	Balance Due by Inspectors, March 31, 1916.		Totals.
Stamps on hand.	Cash on hand.								Stamps on hand.	Cash on hand.	
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
		8,940 00			8,940 00	Regina		1,845 55	7,094 45		8,940 00
7,756 25		9,595 00	2 15		17,353 40	Saskatoon	64 90	9,543 85	7,714 65		17,353 40
7,756 25		18,535 00	2 15		26,293 40	*Saskatchewan*	64 90	11,389 40	14,839 10		26,293 40
5,286 20		7,950 00		98 60	13,334 80	*Calgary, Alta.*	4 60	5,875 50	7,454 30		13,334 80
2,156 85		1,585 00			3,741 85	Nelson	1 15	1,043 30	2,697 40		3,741 85
3,963 40		2,875 00			7,838 40	Vancouver		2,185 45	4,652 95		6,838 40
6,120 25		4,460 00			10,580 25	*British Columbia*	1 15	3,228 75	7,350 35		10,580 25
1,902 75					1,902 75	*Dawson, Yukon*		82 55	1,820 20		1,902 75
157,449 40	144 10	107,125 00	30 15	205 60	264,954 25	Total	104 55	111,069 85	153,739 05	40 80	264,954 25
					1,170 26	Milk test glassware		1,170 26			1,170 26
					266,124 51			112,240 11			266,124 51
					7 00	Less Refunds as per Statement No. 15		7 00			7 00
					266,117 51	Grand total	104 55	112,233 11	153,739 05	40 80	266,117 51

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

SESSIONAL PAPER No. 12

WEIGHTS AND MEASURES, 1915-16.

No. 18 (B).—Deputy Inspectors of Old Divisions in Account with Revenue.

Dr. Cr.

Balances due April 1, 1915. — Cash on hand.	Totals.	Divisions.	Balances due March 31, 1916. — Cash on hand.	Totals.
$ cts.	$ cts.		$ cts.	$ cts.
87 10	87 10	..... Essex, Ont.....	87 10	87 10
5 62	5 62	.....Hull, Que.....	5 62	5 62
92 72	92 72		92 72	92 72

Inland Revenue Department,
Ottawa, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

WEIGHTS AND MEASURES, 1915-1916.

DR. No. 19 (A).—Inspection Divisions in Account with Expenditures. CR.

Balances due by Inspectors April 1, 1915.	Amounts received from Department to meet expenditures.	Deductions from Salaries for			Totals.	Divisions.	Expenditures authorized by the Department.					Balances due by Inspectors, Mar. 31, 1916.	Totals.
		Superannuation.	Insurance.	Guarantee.			Salaries.	Special Assistance	Rent.	Travelling Expenses.	Sundries.		
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
.....	5,553 86	....	.....	9 00	5,562 86	Belleville	3,499 68	78 00	622 00	1,114 32	248 86	.....	5,562 86
.....	10,411 38	.....	....	16 20	10,427 58	Hamilton	8,099 52	.....	.....	2,144 23	183 83	....	10,427 58
.....	4,454 69	.....	.....	7 20	4,461 89	Kingston	2,699 88	675 20	.....	1,026 16	60 65	.....	4,461 89
.....	9,863 05	.....	....	11 32	9,874 37	London	5,455 21	878 03	144 00	3,174 83	222 30	...	9,874 37
.....	15,774 84	33 00	.....	14 45	15,822 29	Ottawa	6,580 78	7,393 46	.....	1,723 36	124 69	..	15,822 29
.....	10,581 05	24 00	...	14 10	10,619 15	Toronto	7,749 81	949 95	.....	1,831 22	88 17	.....	10,619 15
.....	56,638 87	57 00	.....	72 27	56,768 14	*Ontario*	34,084 88	9,974 64	766 00	11,014 12	928 50	.....	56,768 14
.....	19,810 03	6 99	..	22 45	19,839 47	Montreal	12,543 76	3,600 96	975 01	2,473 91	245 83	.....	19,839 47
.....	15,837 13	38 40	87 60	20 25	15,983 38	Quebec	5,374 80	3,857 34	400 00	3,179 85	171 39	...	15,983 38
.....	5,711 56	.....	45 15	5 70	5,762 41	Sherbrooke	2,299 86	1,999 86	375 00	1,006 39	81 30	.....	5,762 41
.....	5,001 80	.....	.....	6 60	5,008 40	St. Hyacinthe	2,569 96	1,665 67	.....	729 67	43 10	.....	5,008 40
.....	5,764 32	.....	66 90	6 00	5,836 32	Three Rivers	2,249 88	1,999 80	.....	1,475 56	111 08	....	5,836 32
.....	52,124 84	45 39	198 75	61 00	52,429 98	*Quebec*	28,038 26	13,123 63	1,750 01	8,865 38	652 70	.....	52,429 98
.....	5,276 20	.....	...	10 80	5,287 00	*St. John, N.B.*	4,749 84	32 00	.....	410 66	94 50	.....	5,287 00
.....	4,301 39	.....	.....	5 70	4,307 09	Halifax	1,830 03	1,259 92	507 36	587 47	122 31	...	4,307 09
.....	3,943 14	27 96	.....	7 20	3,978 30	Pictou	3,199 80	48 00	.....	651 60	78 90	.....	3,978 30
.....	8,244 53	27 96	.....	12 90	8,285 39	*Nova Scotia*	5,029 83	1,307 92	507 36	1,239 07	201 21	..	8,285 39
.....	2,206 99	.....	.....	5 40	2,212 39	*Charlottetown, P.E.I.*	1,949 88	79 35	.....	167 43	15 73	...	2,212 39
.....	12,029 53	.....	.....	13 87	12,043 40	*Winnipeg, Man.*	6,576 46	924 93	866 64	3,358 65	316 72	.....	12,043 40
.....	7,908 33	31 92	.....	9 09	7,949 85	*Calgary, Alberta*	4,599 96	18 00	240 00	2,834 07	257 82	.....	7,949 85
.....	3,414 06	.....	.....	2 56	3,416 62	Regina	1,283 36	1,005 10	.....	819 81	308 41	....	3,416 62
3 70	12,752 24	.....	.....	7 80	12,763 74	Saskatoon	3,966 56	3,388 78	180 00	5,032 14	192 56	3 70	12,763 74

3 70	10,196 30			10 36	16,180 36	*Saskatchewan*	5,249 86	4,393 88	180 00	5,851 95	500 97	3 70	16,180 36
	4,176 38			3 60	4,180 19	Nelson	1,249 92	825 00	180 00	1,814 22	111 05	....	4,180 19
..	3,064 83		56 16	7 20	3,128 21	Vancouver	2,399 88	40 00	. . . .	241 15	444 18	...	3,128 21
.	7,241 21		56 16	10 80	7,308 40	*British Columbia*	3,649 80	865 00	180 00	2,058 37	555 23	...	7,308 40
	1,036 00			3 60	1,039 60	*Dawson*	999 96	.. ..	....	....	39 64	...	1,039 60
	97 48			..	97 48	Chief Inspector	.....	....	.. ..	... .	97 48	.....	97 48
	2,122 54			3 00	2,125 54	Inspector of Elevator Scales	1,500 00	.. . .	.....	447 95	177 59	.....	2,125 54
3 70	171 [illegible] 05	162 27	254 91	213 60	171,727 53		96,428 73	30,719 35	4,490 01	36,247 65	3,838 09	3 70	171,727 53
	2,416 79				2,416 79	General Contingencies	.....	.. ...	.....	.. ....	2,416 79	.....	2,416 79
	2,557 64				2,557 64	Printing	....	... .	.. ...	.....	2,557 64	. ...	2,557 61
	485 59			..	485 59	Stationery	.. ...	.. . .	.....	.....	485 59	. ...	485 59
	3,493 91				3,493 91	Provisional Allowance	....	....	.....	.....	3,493 91	.. ...	3,493 91
	436 10	..	..	..	436 10	International Bureau W. & Measures	.....	....	.....	. ....	436 10	.....	436 10
3 70	180,483 08	162 27	254 91	213 60	181,117 56	Grand Totals	96,428 73	30,719 35	4,490 01	36,247 65	13,228 12	3 70	181,117 56

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

WEIGHTS AND MEASURES, 1915-16.

DR. No. 19 (B).—OLD INSPECTION DIVISIONS in Account with Expenditures. CR.

Balances due by sundry persons, April 1, 1915.	Totals.	Divisions.	Balances due by sundry persons, March 31, 1916.	Totals.
$ cts.	$ cts.		$ cts.	$ cts.
39 56	39 56	Essex	39 56	39 56
33 53	33 53	Waterloo	33 53	33 53
73 09	73 09	*Ontario*	73 09	73 09
0 33	0 33	Drummond	0 33	0 33
41 45	41 45	Laval	41 45	41 45
26 88	26 88	Montmorency	26 88	26 88
27 51	27 51	Richelieu	27 51	27 51
96 17	96 17	*Quebec*	96 17	96 17
24 00	24 00	Lunenburg, Nova Scotia	24 00	24 00
193 26	193 26	Totals	193 26	193 26

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

GAS INSPECTION, 1915--16.

No. 20.—Inspection Districts in Account with Revenue.

Dr. Cr.

Balances due by Inspectors April 1, 1915. — Stamps on Hand.	Stamps issued to Inspectors	Totals.	Districts.	Returned Damaged Stamps.	Deposited to Credit of Receiver General.	Balances due by Inspectors Mar. 31, 1916 — Stamps on Hand.	Totals.
$ cts.	$ cts	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.
3,311 65	600 00	3,911 65	Belleville	90 00	1,612 00	2,209 65	3,911 65
3,516 20	6,600 00	10,116 20	Hamilton	298 50	6,895 45	2,922 25	10,116 20
7,072 50	4,800 00	11,872 50	London	540 00	7,546 15	3,786 35	11,872 50
2,712 35	4,625 00	7,337 35	Ottawa		2,635 65	4,701 70	7,337 35
3,947 50	15,225 00	19,172 50	Toronto	537 00	11,347 90	7,287 60	19,172 50
20,560 20	31,850 00	52,410 20	*Ontario*	1,465 50	30,037 15	20,907 55	52,410 20
3,122 00	6,200 00	9,322 00	Montreal		7,470 45	1,851 55	9,322 00
2,050 90	300 00	2,350 90	Quebec	136 50	870 30	1,344 10	2,350 90
820 80		820 80	Sherbrooke	24 00	186 10	610 70	820 80
652 00		652 00	t. Hyacinthe	122 55	110 60	418 85	652 00
6,645 70	6,500 00	13,145 70	*Quebec*	283 05	8,637 45	4,225 20	13,145 70
1,655 80	500 00	2,155 80	St. John, N.B.	57 00	614 90	1,483 90	2,155 80
804 60	85 00	889 60	Halifax, N.S.		560 75	328 85	889 60
1,363 65		1,363 65	Charlottetown, P.E.I.	70 50	75 10	1,218 05	1,363 65
31,431 05	1,200 00	35,631 05	*Winnipeg, Man.*	211 50	2,567 45	32,852 10	35,631 05
7,005 20	1,300 00	8,305 20	Calgary	100 50	1,178 85	7,025 85	8,305 20
2,015 50		2,015 50	Edmonton	2,015 50			2,015 50
9,020 70	1,300 00	10,320 70	*Alberta*	2,116 00	1,178 85	7,025 85	10,320 70
1,798 40	3,700 00	5,498 40	Vancouver		1,804 75	3,693 65	5,498 40
907 90	750 00	1,657 90	Victoria		558 40	1,099 50	1,657 90
2,706 30	4,450 00	7,156 00	*British Columbia*		2,363 15	4,793 15	7,156 30
77,188 00	45,885 00	123,073 00	Totals	4,203 55	46,034 80	72,834 65	123,073 00
		3 00	Less refunds		3 00		3 00
		123,073 00	Grand Totals	4,203 55	46,031 80	72,834 65	123,070 00

Inland Revenue Department,
Ottawa, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

DR. No. 21.—INSPECTION DISTRICTS IN

Balance due by Inspectors, April 1, 1915.	Amounts received from Department to meet expenditures.	Deductions from Salaries for			Totals.	Districts.
		Superannuation.	Retirement.	Guarantee.		
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	
	724 93	1 92		1 80	728 65	Belleville.
	5,773 48			10 80	5,784 28	Hamilton
	6,249 02			15 15	6,264 17	London
	8,107 33			10 26	8,117 59	Ottawa
	12,480 00	7 92	90 00	25 05	12,602 97	Toronto
	33,334 76	9 84	90 00	63 06	33,497 66	*Ontario*
	8,516 95			14 76	8,531 71	Montreal.
	496 32			3 60	499 92	Quebec.
	490 56	3 36		5 40	499 92	Sherbrooke.
	9,503 83	3 96		23 76	9,531 55	*Quebec*
	98 16			1 80	99 96	Fredericton
	2,226 45			4 65	2,231 10	St. John.
	2,324 61			6 45	2,331 06	*New Brunswick*
	2,898 12	1 92		7 20	2,907 24	Halifax.
12 88					12 88	Pictou.
12 88	2,898 12	1 92		7 20	2,920 12	*Nova Scotia*
	496 32			3 60	499 92	*Charlottetown, P.E.I.*
	6,892 61			12 60	6,905 21	*Winnipeg, Man.*
	332 13				332 13	*Calgary, Alberta*
	27 00				27 00	Vancouver.
	1,504 78			5 40	1,510 18	Victoria
	1,531 78			5 40	1,537 18	*British Columbia*
	430 06				430 06	Insp. of Eastern Dom.
	735 54				735 54	" Western "
12 88	58,479 75	15 72	90 00	122 07	58,720 43	
200 00	1,991 09				2,191 09	General Contingencies.
	4,458 04				4,458 04	Printing
	1,098 90				1,098 90	Stationery
212 88	66,027 79	15 72	90 00	122 07	66,468 46	Grand Total

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

INSPECTION, 1915-16

ACCOUNT WITH EXPENDITURES. CR.

Expenditures authorized by the Department.					Balances due by Inspectors, March 31, 1916.	Totals.
Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.		
$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
99 96	81 00	200 00	272 25	75 44		728 65
3,949 92	958 00	120 00	570 15	186 21		5,784 28
5,493 68	84 00		557 55	128 94		6,264 17
4,599 72	3,033 02	429 90		54 95		8,117 59
11,724 48	180 00	165 00	269 80	263 69		12,602 97
25,867 76	4,336 02	914 90	1,669 75	709 23		33,497 66
7,899 84	66 00	400 00	58 20	107 67		8,531 71
499 92						499 92
499 92						499 92
8,899 68	66 00	400 00	58 20	107 67		9,531 55
99 96						99 96
1,988 60	20 00		179 40	43 10		2,231 10
2,088 56	20 00		179 40	43 10		2,331 06
2,399 88		507 36				2,907 24
					12 88	12 88
2,399 88		507 36			12 88	2,920 12
499 92						499 92
6,749 88				155 33		6,905 21
	61 32		153 65	117 16		332 13
				27 00		27 00
1,499 88			10 30			1,510 18
1,499 88			10 30	27 00		1,537 18
			407 30	22 76		430 06
	166 66		485 30	83 58		735 54
48,005 56	4,650 00	1,822 26	2,963 90	1,265 83	12 88	58,720 43
				1,991 09	200 00	2,191 09
				4,458 04		4,458 04
				1,098 90		1,098 90
48,005 56	4,650 00	1,822 26	2,963 90	8,813 86	212 88	66,468 46

J. U. VINCENT,
Deputy Minister.

ELECTRIC LIGHT INSPECTION 1915-1916.

No. 22.—Inspection Districts in Account with Revenue.

Dr. Cr.

Balances due by Inspectors April 1, 1915 — Stamps on Hand.	Stamps issued to Inspectors	Totals.	Districts.	Returned Damaged Stamps.	Deposited to Credit of Receiver General.	Balances due by Inspector Mar. 31. 1916 — Stamps on hand.	Totals.
$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.
6,018 40	1,800 00	7,818 40	Belleville		2,186 30	5,632 05	7,818 40
1,770 70	300 00	2,070 70	Fort William		518 35	1,552 35	2,070 70
2,686 05	4,450 00	7,136 05	Hamilton		5,476 95	1,659 10	7,136 05
6,004 70	4,700 00	10,704 70	London		6,715 35	3,989 35	10,704 70
2,082 30	6,750 00	8,832 30	Ottawa		4,771 95	4,060 35	8,832 30
	3,280 00	3,280 00	Sudbury		565 95	2,714 05	3,280 00
7,064 80	8,930 00	15,994 80	Toronto		12,448 30	3,546 50	15,994 80
25,626 95	30,210 00	55,836 95	*Ontario*		32,683 20	23,153 75	55,836 95
11,367 40	7,950 00	19,317 40	Montreal		11,219 20	8,098 20	19,317 40
1,100 45	1,950 00	3,050 45	Quebec		1,907 65	1,142 80	3,050 45
1,568 95		1,568 95	Sherbrooke		832 50	736 45	1,568 95
1,570 15	400 00	1,970 15	St. Hyacinthe	3 00	900 60	1,066 55	1,970 15
651 70	1,100 00	1,751 70	Three Rivers		956 00	795 70	1,751 70
16,258 65	11,400 00	27,658 65	*Quebec*	3 00	15,815 95	11,839 70	27,658 65
760 70	1,940 00	2,700 70	*St. John, N. B.*		1,582 65	1,118 05	2,700 70
1,811 25	2,050 00	3,861 25	*Halifax, N. S.*		2,224 60	1,636 65	3,861 25
1,897 05		1,897 05	*Charlottetown, P.E.I.*		165 30	1,731 75	1,897 05
49,869 60		49,869 60	*Winnipeg, Man*		3,952 70	45,916 90	49,869 60
6,916 75		6,916 75	*Regina, Sask*		2,304 70	4,612 05	6,916 75
8,940 50	550 00	9,490 50	Calgary		2,129 70	7,360 80	9,490 50
5,970 80		5,970 90	Edmonton		890 40	5,080 50	5,970 90
14,911 40	550 00	15,461 40	*Alberta*		3,020 10	12,441 30	15,461 40
4,698 20	6,000 00	10,698 20	Vancouver		6,948 95	3,749 25	10,698 20
2,638 55	1,560 00	4,198 55	Victoria		1,353 60	2,844 95	4,198 55
7,336 75	7,560 00	14,896 75	*British Columbia*		8,302 55	6,594 20	14,896 75
1,350 00		1,350 00	*Dawson*			1,350 00	1,350 00
126,739 10	53,710 00	180,449 10	Totals	3 00	70,051 75	110,394 35	180,449 10
		400 00	Export of Electric Power Licenses.		400 00		400 00
		110 50	Electrical Standard—Laboratory Fees.		110 50		110 50
		180,959 10	Grand Totals	3 00	70,562 25	110,394 35	180,959 60

Inland Revenue Department,
Ottawa, July 1, 1916

J. U. VINCENT,
Deputy Minister.

ELECTRIC LIGHT INSPECTION, 1915-1916.

No. 23.—Account with Expenditures.

Dr. Cr.

Amount received from Department to meet Expenditure	Deduction from salaries for: Retirement	Deduction from salaries for: Guarantee	Totals.	Districts.	Expenditure authorized by the Department: Salaries.	Special Assistance	Rent.	Travelling Expenses.	Sundries.	Balance due by Inspectors, March 31, 1916.	Totals.
$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
2,336 78	....	4 95	2,346 73	Belleville	1,930 45	36 00	.....	365 40	14 88	....	2,346 73
1,677 09	....	3 60	1,680 69	Fort William	1,399 92	20 00	.....	183 35	77 42	.....	1,680 69
539 80	.....	.....	539 80	Hamilton	.....	.....	.....	539 80	.....	.....	539 80
754 55	.....	.....	754 55	London	.....	75 00	.....	553 85	125 70	.....	754 55
554 90	.....	.....	554 90	Ottawa	.....	.....	.....	554 90	.....	.....	554 90
729 30	.....	1 39	734 69	Sudbury	386 09	.....	.....	307 80	40 80	.....	734 69
897 64	.....	.....	897 64	Toronto	.....	.....	.....	845 75	51 89	.....	897 64
1,423 91	.....	1 89	1,425 80	C. A. Kinsman	1,425 00	.....	.....	.....	.....	.....	1,425 00
8,917 97	.....	16 74	8,934 00	*Ontario*	5,141 46	131 00	....	3,350 85	310 69	.....	8,934 00
1,950 72	.....	.....	1,950 72	Montreal	.....	1,766 02	.....	148 95	35 75	.....	1,950 72
3,356 99	.....	.....	3,356 99	Quebec	.....	2,276 63	600 00	214 80	265 56	.....	3,356 99
184 11	.....	.....	184 11	Sherbrooke	.....	.....	.....	175 61	8 50	.....	184 11
825 75	.....	3 90	829 65	St. Hyacinthe	550 00	.....	.....	276 05	3 00	.....	829 65
881 67	.....	3 00	884 67	Three Rivers	499 92	.....	195 00	173 95	15 80	.....	884 67
7,199 64	.....	6 90	7,206 54	*Quebec*	1,049 92	4,042 65	795 00	989 36	328 61	.....	7,206 54
303 61	.....	.....	303 61	*St. John, N.B.*	.....	12 00	.....	265 12	26 49	.....	303 61
1,365 27	.....	.....	1,365 27	*Halifax, N.S.*	.....	60 00	.....	1,033 50	271 77	.....	1,365 27
124 77	.....	.....	124 77	*Charlottetown, P.E.I.*	.....	60 00	.....	41 95	22 82	.....	124 77
1,577 66	.....	.....	1,577 66	*Winnipeg, Man.*	.....	.....	600 00	201 70	775 96	.....	1,577 66
2,678 44	.....	4 65	2,681 09	Calgary	2,200 00	21 00	.....	361 45	98 64	.....	2,681 09
1,715 81	.....	3 60	1,719 41	Edmonton	1,299 96	.....	.....	313 65	105 80	.....	1,719 41
4,394 25	.....	5 25	4,400 50	*Alberta*	3,499 96	21 00	.....	675 10	204 44	.....	4,400 50

ELECTRIC LIGHT INSPECTION, 1915-1916.

No. 23.—Account with Expenditures.

Dr. Cr.

Amount received from Department to meet Expenditure	Deduction from salaries for		Totals.	Districts.	Expenditure authorized by the Department.					Balance due by Inspectors, March 31, 1916.	Totals.
	Retirement.	Guarantee.			Salaries.	Special Assistance	Rent.	Travelling Expenses.	Sundries.		
$ cts.	$ cts.	$ cts.	$ cts.		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
4,357 31		5 40	4,362 71	*Regina, Sask*	2,499 96			1,680 00	182 75		4,362 71
8,041 02	9 96	14 40	8,065 38	Vancouver	6,599 76	900 00		309 53	256 09		8,065 38
255 58			255 58	Victoria		48 00		123 50	84 08		255 58
8,296 60	9 96	14 40	8,320 96	*British Columbia*	6,599 76	948 00		433 03	340 17		8,320 96
496 32		3 60	499 92	*Dawson*	499 92						499 92
376 02			376 02	Chief Electrical Engineer				4 00	372 02		376 02
90 25			90 25	Inspector of Eastern Dominion				82 55	5 00	2 70	97 25
3,932 37		3 60	3,935 97	Inspector of Western Dominion	2,599 92	833 30		41 25	461 50		3,935 97
41,428 33	9 96	58 89	41,497 18	Totals for Districts, etc	21,890 90	6,107 95	1,395 00	8,798 41	3,302 22	2 70	41,497 18
13,512 29			13,512 29	General contingencies					13,512 29		13,512 29
98 75			98 75	Printing					98 75		98 75
141 40			141 40	Stationery					141 40		141 40
400 00			400 00	International Electro technical Commission					400 00		400 00
2,152 35			2,152 35	Provincial Allowance					2,152 35		2,152 35
44 10			44 10	Export of Electric Power					44 10		44 10
57,777 22	9 96	58 89	57,846 07	Grand Total	21,890 90	6,107 95	1,395 00	8,798 41	19,651 11	2 70	57,846 07

Inland Revenue Department,
Ottawa, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

No. 24.—STATEMENT showing the Amounts voted and the Expenditures for each service for the year ended March 31, 1916.

Services.	Grants.	Expenditures.	Over Expenditures.	Under Expenditures.
	$ cts.	$ cts.	$ cts.	$ cts.
Minister's salaries	7,000 00	7,000 00		
Departmental salaries	144,312 50	123,404 28		20,908 22
" contingencies	20,000 00	19,797 05		202 95
Excise salaries	570,825 00	491,536 90		79,288 10
" contingencies	130,000 00	130,171 43	171 43	
War Tax contingencies	175,000 00	47,484 76		127,515 24
Special War Act	6,723 40	6,723 40		
Duty pay at large distilleries and other factories	15,000 00	13,881 16		1,118 84
" other than special survey	1,500 00	1,400 00		100 00
Preventive service salaries and contingencies	19,000 00	17,243 23		1,756 77
Tobacco stamps	130,000 00	83,512 95		46,487 05
Excise commission to customs officers	5,000 00	3,140 89		1,859 11
Tobacco stamps Commission	100 00			100 00
Provisional allowance, Excise	11,000 00	10,042 04		957 96
" " Weights and Measures	4,000 00	3,493 91		506 09
" " Gas and Electric Light	4,000 00	2,152 35		1,847 65
Methylated Spirits contingencies	110,000 00	99,460 41		10,539 59
Minor expenditure	500 00	176 65		323 35
Weights and Measures, salaries	112,600 00	96,428 73		16,171 27
" " contingencies	101,000 00	80,755 12		20,244 88
Gas and Electric Light, salaries	88,150 00	69,896 46		18,253 54
" " contingencies	65,000 00	51,606 04		13,393 96
Adulteration of Food, salaries and contingencies	51,000 00	43,315 81		7,684 19
Export of Electric Power	1,000 00	44 10		955 90
International Bureau of Weights and Measures	800 00	436 10		363 90
International Electro-Technical Commission	400 00	400 00		
Proprietary or Patent Medicines	1,500 00	1,229 05		270 95
Total	1,775,410 90	1,404,532 82	171 43	371,049 51

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

DR. 25.—STATEMENT showing the transactions in connection with the manufacture of Methylated Spirits for the year ended March 31, 1916. CR.

	Amount.	Totals.
	$ cts.	$ cts.
To Stock on hand, March 31, 1915.		
Grain Alcohol 6,380·60 Proof gal. at 20 cents	1,276 12	
Wood Alcohol 709·01 Standard gal. at 71 cents	503 40	
Methylated Spirits 289·92 " " 50 "		
" " No. 1, 2, and No. 1 Benzine 5,050 gals. at 75 cents	144 96	
	3,787 62	
Barrels, 368 at $4; Drums, 55 at $10; Drums, 4 at $4	2,038 00	
		7,750 10
To Methylated Spirits sold and unpaid on March 31, 1915.		4,217 19
3410·59 Standard gal., at 53 cents	1,494 77	
428·41 " " 55 "	235 63	
42·46 " " 60 "	25 48	
719·71 " " 63 "	453 43	
775·03 " " 65 "	503 76	
359·84 " " 75 "	269 87	
Barrels, 228 at $4; Drums, 72 at $10	1,234 25	
To Disbursements for purchase of materials, etc., as per statement No. 2.		99,460 41
Alcohol 35,595·33 Proof gals., at 20 cents	7,119 07	
" 82,256·30 " " 30 "	24,676 89	
" 48,098·59 " " 40 "	19,239 43	
Barrels, 2,393 at $4	9,572 00	
Wood Naphtha 3,841·16 Proof gals. at 87½ ..... $ 3,361 02		
Wood Naphtha 17,409·71 Proof gals. $1 ..... $ 17,409 71		
	$ 20,770 73	
Less difference in freight $23 21		
" amount refunded on a/c. of freight ... $63 60		
	$86 81	
	20,683 92	
Demurrage on methylated spirits shipped	0 75	
Barrels, 553 at $4	2,212 00	

	Amount.	Totals.
	$ cts.	$ cts.
By Cash received on account of Methylated Spirits sold during the year ended March 31, 1916, as per details.		
Methylated Spirits.....Standard gal.		
Proof gallons:—		
1 819·16 Standard gallons at 50 cents	909 49	
34,189·05 " " 73 "	24,958 80	
70,831·36 " " 75 "	53,117 32	
3,439·26 " " 83 "	2,854 57	
11,300·12 " " 85 "	9,605 01	
Barrels, 2,027 at $4; Drums, 429 at $10	12,398 00	
Cans, 2 at $4	8 00	
		103,851 27
Add amount sold 1914-15 and not paid:—		
41·73 Standard gallons at 50 cents	20 86	
1,338·16 " 73 "	976 84	
1,175·07 " 75 "	881 28	
Barrels, 102 at $4; Drums, 16 at $10	568 00	
		2,446 98
Add returned barrels 2,542 at $4		10,168 00
" Alcohol		4 25
" Freight		0 96
		116,471 46
Deduct amount sold in 1915-16 and not paid:—		
1,072·76 Standard gallons at 83 cents	890 39	
3,492·74 " 85 "	2,892 33	
82·73 " 73 "	60 39	

Gasoline 46·7 at 20c., 88·14 at 21c., 97·51 at 22c., 46·9 at 24c., 46·2 at 25½c., 46·9 at 29c., 47·5 at 31c., 46·1 at 32½c., 99·2 at 33½c. (less empties) $7 55	140 62		Barrels, 168 at $4; Drums, 11 at $10	782 00	4,625 11
	83,644 68				111,846 35
To Barrels, 1,892 at $4; Drums, 398 at $10	10,348 00		Stock on hand March 31, 1916.		
" Special assistance	1,081 23		Grain Alcohol 6,740·26 Proof gal. at 40 cents	2,696 10	
" Freight	3,493 50		Wood Alcohol 1,213·31 Std. gal. at 87½ cents	1,061 65	
" Supplies	1,126 89		Methylated Spirits, Special 212·34 Std. gals. at 50 cents	106 17	
" Printing	11 39		Methylated Spirits, Special 662·99 Std. gals. at 85 cents	563 54	
" Stationery	10 48		Barrels, 144 at $4; Drums, 2 at $10	596 00	
	5,723 49				5,023 46
	99,716 17				
Less cartage and freight	255 76				
	99,460 41				
To other expenses as follows:—			Grand Total		116,869 81
Salaries paid from Civil Government Vote	5,359 00		By Profit and Lost		1,930 39
Salaries paid from Civil Government Contingencies	637 50				
Salary of J. B. Laroche, replacing a French reservist	785 00				
Salary as labourer of J. B. Champagne	600 00				
		7,372 50			
		118,800 20			118,800 20
Methylated spirits manufactured during the year—104,026·49 gallons			Alcohol used in manufacture 161,044·11 Proof gal. Wood Naphtha used in manufacture 31,997 Proof gal.		

INLAND REVENUE DEPARTMENT,
OTTAWA, JULY 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.

STATISTICS

APPENDIX A.—

No. 1.—Return of Manufactures for

Divisions.	Licenses.		Materials Taken for Use.				
			Grain.				
	No.	Fees.	Malt.	Indian Corn.	Rye.	Oats.	Wheat.
		$	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Belleville, Ont.	1	250	908,003	13,464,710	904,906	....	.....
Guelph "	1	250	61,920	900,535	234,665	6,880	.....
Hamilton "	1	250	50,960	1,919,200	87,360	7,280	.....
Perth "	3	625	5,845	.....	.....	....	.....
Prescott "	1	250	132,526	2,710,098	423,091	15,120	....
Toronto "	2	500	340,891	4,996,800	822,259	86,750	....
Windsor "	1	250	365,950	6,268,800	1,192,450	53,100	....
Totals	10	2,375	1,866,095	29,360,143	3,664,731	169,130	....
Joliette, Que.	1	250	2,920,800	2,668,968	3,168,602	.....	.....
Montreal "	2	500	.....	.....	.....	.....	.....
St. Hyacinthe "	2	375	76,960	976,980	99,550	.....	.....
Totals	5	1,125	2,997,760	3,645,918	3,268,152	....	....
Vancouver, B.C.	1	250	.....	.....	.....	.....	.....
Grand Totals	16	3,750	4,863,855	33,006,091	6,932,883	169,130	.....

No. 2.—Comparative Statement of Manufactures for

1915.							
Ontario	10	2,500	3,950,309	56,682,138	10,972,897	574,059	4,620
Quebec	3	750	2,747,042	4,223,010	2,855,648	.....	.....
British Columbia	1	250	63,991	.....	30,890	8,015	1,176,350
Totals	14	3,500	6,761,342	60,905,148	13,859,435	582,074	1,180,970
1916.							
Ontario	10	2,375	1,866,095	29,360,143	3,664,731	169,130	.....
Quebec	5	1,125	2,997,760	3,645,948	3,268,152	.....	.....
British Columbia	1	250	.....	.....	.....	.....	.....
Totals	16	3,750	4,863,855	33,006,091	6,932,883	169,130	.....

Inland Revenue Department,
Ottawa, July 1, 1916.

SESSIONAL PAPER No. 12

SPIRITS.

the Fiscal Year ended March 31, 1916.

Total Grain.	Molasses.	Used in Spirits Manufactured.		Proof Spirits Manufactured.	Duty Collected ex-manufactory, on Deficiencies and Assessments.		Total Duty Collected ex-manufactory, including License Fees.
		Grain.	Molasses.				
Lbs.	Lbs.	Lbs.	Lbs.	Galls.	Galls.	$ cts.	$ cts.
15,277,619	3,334,166	14,933,219	3,334,166	1,125,308 31			250 00
1,204,000		1,316,000		81,730 82	202 93	487 03	737 03
1,164,800		1,254,400		76,626 12	809 14	1,941 94	2,191 94
5,845		9,845		534 96	54 32	131 45	756 45
3,280,835		3,275,235		199,063 65			250 00
6,246,700		6,714,700		420,632 46	346 63	831 91	1,331 91
7,880,300		8,350,700		497,261 92	1,921 61	4,611 86	4,861 86
35,060,099	3,334,166	35,854,099	3,334,166	2,401,258 24	3,334 63	8,004 19	10,379 19
8,758,370	11,550,294	8,789,200	11,550,294	434,116 28			250 00
				550,221 21			500 00
1,153,490		1,170,290		64,415 82			375 00
9,911,860	11,550,294	9,959,490	11,550,294	1,048,753 31			1,125 00
					731 12	1,754 69	2,004 69
44,971,959	14,884,460	45,813,589	14,884,460	3,450,011 55	4,065 75	9,758 88	13,508 88

the Fiscal Years ended March 31, 1915 and 1916.

72,184,023	5,720,023	72,606,551	5,720,023	4,746,643 73	6,406 74	12,174 06	14,674 06
9,825,700	14,867,580	9,795,360	14,867,580	1,284,294 25			750 00
1,279,246		1,301,646		85,642 18			250 00
83,288,969	20,587,603	83,703,557	20,587,603	6,116,580 16	6,406 74	12,174 06	15,674 06
35,060,099	3,334,166	35,854,099	3,334,166	2,401,258 24	3,334 63	8,004 19	10,379 19
9,911,860	11,550,294	9,959,490	11,550,294	1,048,753 31			1,125 00
					731 12	1,754 69	2,004 69
44,971,959	14,884,460	45,813,589	14,884,460	3,450,011 55	4,065 75	9,758 88	13,508 88

J. U. VINCENT,
Deputy Minister

APPENDIX A.—

No. 3.—STATEMEMT showing the transactions in the Distilleries in the

Divisions.	In Process, including Deficiencies brought forward.	Manufactured, including Surpluses.	Returned to Distillery for Redistillation.	
			Duty Paid.	In Bond.
	Galls.	Galls.	Galls.	Galls.
Belleville, Ont.	53,329·31	1,125,308·31		8,957·84
Guelph "	20,948·20	81,730·82		143·26
Hamilton "	12,001·22	76,626·12		48,901·01
Perth "	256 36	534·96		
Prescott "	18,394·43	199,063 65		3,174·94
Toronto "	164,581·82	420.632·46	184 34	233,407·88
Windsor "	108,803·21	497,361·92		47,658·23
Totals	378,314 55	2,401.258·24	184 34	342,243·16
Joliette, Que.	16,246·80	434,116 28		12,306·08
Montreal "	24,672·94	550.221·21		79,790·81
St. Hyacinthe, Que.	23,990·70	64,415·82		414·26
Totals	64.910·44	1,048,753·31		92,511·15
Vancouver, B. C.	2,125·94			8,936 00
Grand Totals	445,350 93	3,450,011·55	184 34	443,690·31

INLAND REVENUE DEPARTMEMT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

SPIRITS—*Continued.*

Dominion of Canada, during the Fiscal Year ended March 31, 1916.

Received from Other Sources, Duty Paid.	Totals.	Warehoused.	Fusel Oil. Written off.	Deficiencies. on which Duty was Collected.	In Process, including Deficiencies, carried forward.	Totals.
Galls.	Galls.	Galls.	Galls.	Galls.	Galls.	Galls.
.....	1,187,595·46	996,855·93	3,375·27	.....	187,364·26	1,187,595·46
970·30	103,792·58	99,844·18	1,296·35	202·93	2,449·12	103,792·58
1,476·63	139,004·98	137,319·20	219·66	809·14	656·98	139,004·98
.....	791·32	615·90	.....	54·32	121·10	791·32
1,215·26	221,848·28	163,564·63	683·67	.....	57,599·98	221,848·28
1,124·68	819,931·18	789,113·15	4,541·66	346·63	25,929·74	819,931·18
499·16	654,322·52	632,499·34	.....	1,921·61	19,901·57	654,322·52
5,286·03	3,127,286·32	2,819,812·33	10,116·61	3,334·63	294,022·75	3,127,286·32
.....	462,669·16	452,827·37	.....	.....	9,841·79	462,669·16
156·76	654,841·72	590,803·70	6,922·61	.....	57,115·41	654,841·72
115·77	88,936·55	69,413·76	233·31	.....	19,289·48	88,936·55
272·53	1,206,447·43	1,113,044·83	7,155·92	.....	86,246·68	1,206,447·43
438·94	11,500·88	8,247·63	60·29	731·12	2,461·84	11,500·88
5,997·50	4,345,234·63	3,941,104·79	17,332·82	4,065·75	382,731·27	4,345,234·63

J. U. VINCENT,
Deputy Minister.

APPENDIX A—SPIRITS—*Continued.*

No. 4.—Warehouse Return for the Fiscal Year ended March 31, 1916.

Dr. Cr.

Divisions.	Remaining in Warehouse from last Year.	Warehoused.	Imported.	Received from other Divisions: Removed during Year.	Received from other Divisions: In Transit last Year.	Totals.	Entered for consumption: Quantity.	Entered for consumption: Duty.	Removed to other Divisions: Warehoused in Divisions to which Removed.	Removed to other Divisions: In Transit.	Taken for Redistillation.	Free: Legal Allowance.	Free: Other.	Exported.	Used in Bonded Factories	Remaining in Warehouse	Total
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Cts.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Belleville, Ont.	1,420,086·70	996,855·93		12,079·57		2,429,022·20	70,614·77	172,027·15	776,559·33	76,815·80	8,957·84	11,748·30		239,369·87		1,245,016·24	2,429,022·20
Brantford	4,281·53			32,544·39	151·53	36,977·45	17,157·56	41,185·73							9,828·04	9,991·85	36,977·45
Guelph	1,783,829·98	99,844·18		44,759·46	105·68	1,928,499·30	142,586·49	342,224·23	77,281·21	3,010·87	143·26	32,630·23	1,606·54	28,430·07		1,643,410·63	1,928,499·30
Hamilton	854,075·28	137,319·20	130·91	117,865·86	144·87	1,109,536·12	158,070·37	376,528·59	55,475·65	5,629·27	48,901·01	13,992·00	1,235·87	148,555·77	24,204·09	653,472·09	1,109,536·12
Kingston	2,916·26			53,430·72	104·76	56,451·74	30,821·78	74,573·38							12,621·84	13,008·12	56,451·74
London	5,347·27			31,960·06		37,307·33	36,184·55	87,256·31		322·67				8·39		791·72	37,307·33
Ottawa	28,011·80			110,329·12	3,905·03	142,245·95	120,964·18	290,658·30					374·40			20,907·37	142,245·95
Government Warehouse	6,380·60			161,412·02		167,792·62							8·25		*161,044·11	6,740·26	167,792·62
Department Laboratory				37·93		37·93							37·93				37·93
Owen Sound, Ont.	818·19			16,793·88		17,612·07	20·13	48·31							15,926·28	1,665·66	17,612·07
Perth, "	79,972·65	615·90		137,042·13	1,503·95	219,134·63	83,622·15	195,176·56	5,536·93	1,219·52		584·13		77·20	31,063·03	97,031·67	219,134·63
Peterborough			480·52	2,421·29		2,901·81	2,773·72	3,947·28								128·09	2,901·81
Port Arthur	14,943·58			38,238·14	450·85	53,632·57	44,899·12	107,792·00	43·08							8,690·37	53,632·57
Prescott	1,106,245·55	163,564·63	80,675·43	10,984·33		1,361,469·94	73,860·34	201,471·44	233,109·93	16,799·05	3,174·94	4,123·18	2,239·66	8,874·76	80,675·43	938,613·25	1,361,469·94
St. Catharines	567·19			7,728·50		8,295·69	7,908·29	18,980·02								387·40	8,295·69
Stratford	2,146·37			12,989·90	90·68	15,226·95	14,107·54	33,527·10								1,119·41	15,226·95
Toronto	5,813,179·26	789,113·15	340·34	575,893·67	425·05	7,178,951·47	437,516·35	1,026,983·26	966,549·52	28,218·36	233,407·88	28,416·65	617·15	6,002·70	532,547·90	4,945,674·96	7,178,951·47
Windsor	8,106,845·07	632,499·34		51,974·51	557·27	8,791,876·19	198,258·15	468,803·15	528,433·66	14,544·29	47,658·23	112,440·74	512·19	376,091·93	40,418·25	7,473,518·75	8,791,876·19
Totals	19,229,647·28	2,819,812·33	81,627·20	1,418,445·48	7,439·67	23,556,971·96	1,439,365·49	3,441,182·81	2,642,989·31	146,559·83	342,243·16	203,935·23	6,031·39	807,350·69	*161,044·11 †747,284·86	17,060,167·89	23,556,971·96
Joliette, Que.	858,426·48	452,827·37 *13·98		29,067·78		1,340,335·61	33,995·31	81,751·13	208,859·86	11,693·83	12,306·08	2,161·94				981,318·59	1,340,335·61
Montreal	1,441,585·05	590,803·70	‡1,426·27	791,885·18	9,565·47	2,835,265·67	953,986·40	2,278,342·06	572,949·62	10,116·99	79,790·81	4,703·53	288·86	32·54	148,102·96	1,065,293·90	2,835,265·67
Quebec	24,890·42			234,251·92	1,460·31	260,602·65	200,275·02	481,384·90	313·61				1,636·80		14,561·91	43,815·31	260,602·65
St. Hyacinthe	320,485·18	69,413·76		187,710·63		577,609·57	68,145·15	164,276·73	77,065·20	444·24	414·26	1,048·65	67·72	262·31	94,399·23	335,762·81	577,609·57
Sherbrooke	6,743·38		5,278·33	120,589·46	654·90	133,266·07	56,235·00	136,667·72							65,999·69	11,031·38	133,266·07
Three Rivers	3,818·41			23,163·93	188·10	27,170·44	27,141·87	65,216·27								28·57	27,170·44
Totals	2,655,948·92	*13·98 1,113,044·83	‡1,426·27 5,278·33	1,386,668·90	11,868·78	5,174,250·01	1,339,778·75	3,207,638·81	949,188·29	22,255·06	92,511·15	7,914·12	1,993·38	294·85	323,063·79	2,437,250·62	5,174,250·01
St. John, N.B.	19,847·20			89,622·22	1,763·38	111,232·80	76,698·78	184,230·75					71·44		11,611·73	22,850·85	111,232·80
Halifax, N.S.	5,151·77			20,065·88		25,217·65	19,873·78	47,717·21	188·42					316·14		4,839·31	25,217·65
[illegible]	452·27			14,658·20	275·71	15,386·18	14,798·07	35,521·40								588·11	15,386·18
Totals	5,604·04			34,724·08	275·71	40,603·83	34,671·85	83,238·61	188·42					316·14		5,427·42	40,603·83
Charlottetown, P.E.I.								37·31									
Winnipeg, Man.	61,272·25			370,532·11	16,819·48	448,623·84	332,483·68	795,650·38	12,516·57	464·33			88·61		51,200·23	51,870·42	448,623·84
Moosejaw, Sask.	19,378·28			108,372·12	343·59	128,093·99	119,778·19	287,641·21	1,038·01							7,277·79	128,093·99
Calgary, Alberta	44,707·55			134,791·94	3,517·16	183,016·65	136,481·79	327,718·02	2,172·97						18,930·79	25,428·10	183,016·65
Vancouver, B.C.	392,173·42	8,247·63		51,485·79	1,508·88	453,415·72	119,243·61	286,240·40	10,284·95		8,936·00	5,210·46	1,800·93	71·72	8,268·52	299,599·53	453,415·72
Victoria	16,105·56			23,956·23	1,165·23	41,227·02	28,248·51	67,817·73	2,797·15	34·68			69·05	101·17		9,976·46	41,227·02
Totals	408,278·98	8,247·63		75,442·02	2,674·11	494,642·74	147,492·12	354,058·13	13,082·10	34·68	8,936·00	5,210·46	1,869·98	172·89	8,268·52	309,575·99	494,642·74
Dawson, Y.T.	1,336·80			2,576·80		3,913·60	2,570·75	6,169·77								1,342·85	3,913·60
Summerside	8,612·54					8,612·54										8,612·54	8,612·54
Grand Totals	22,454,633·84	*13·98 3,941,104·79	‡1,426·27 86,905·53	3,621,175·67	44,701·88	30,149,961·96	3,629,324·40	8,687,565·80	3,621,175·67	169,313·90	443,690·31	217,059·81	10,054·80	808,134·57	*161,044·11 †1,160,359·92	19,929,804·47	30,149,961·96

*Surplus in bottling room. ‡Seizure.
†Used in the manufacture of Methylated Spirits at the Government Warehouse, Ottawa.

INLAND REVENUE DEPARTMENT,
OTTAWA, JULY 1, 1916.

12—6¾

J. U. VINCENT.
Deputy Minister.

APPENDIX A—SPIRITS.—*Concluded.*

DR. No. 5.—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1915 and 1916. CR.

Provinces	Remaining in Warehouse from last Year.	Warehoused.	Imported.	Received from other Divisions.		Totals.	Entered for Consumption.		Removed to other Divisions.		Taken for Redistillation.	Free.		Exported.	Used in Bonded Factories.	Remaining in Warehouse.	Total
				Removed during Year.	In Transit last Year.		Quantity.	Duty.	Warehoused in Divisions to which removed.	In Transit.		Legal Allowance.	Other.				
1915.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	$ cts.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Ontario	18,639,781·72	5,111,204·23	33,165·54	958,096·74	12,659·83	24,754,908·06	1,670,558·81	3,584,681 34	2,480,093·27	37,166·82	366,469·47	283,512 14	6,436.49	275.681·73	*155,807·29 250,134·76	19,229,647·28	24,754,908 06
Quebec	2,246,884·64	*258 27 1,283,426 62	4179·39 12,314·66	1,299,187·25	14,408·57	4,856,659 40	1,399,281·04	3,011,521 97	663,866·87	6,985·29	419 75	7,867·98	541·57	436·86	121,311·12	2,655,948·92	4,856,659 40
New Brunswick	11,250·28			94,556·76	2,563·60	108,370·64	79,990 93	176,894 77							8,532 51	19,847·20	108,370 64
Nova Scotia	3,922·26			23,999·68	3,111·10	31,033·04	25,214·07	54,998 93	185·39					29·54		5,604·04	31,033 04
Prince Edward Island				252·46		252·46	252·46	511 68									252 46
Manitoba	73,683·17			478,875·31	17,824·76	570,383·24	421,259·13	925,993 38	20,182·19	343·59					67,326·68	61,272·25	570,383 24
Saskatchewan	25,355·16			69,142·23	4,599·52	99,096·91	79,458·06	177,491 71	260·57							19,378·28	99,096 91
Alberta	52,957·13			152,870·70	3,477·72	209,305·55	150,803 59	335,037 90	519·33						13,275·08	44,707·55	209,305 55
British Columbia	428,500·81	96,051·69		106,672·57	11,348·49	642,573·56	190,535·17	415,514 10	22,585·17	206·18	2,278·81	4,385·40	487·50	362·59	13,453 76	408,278·98	642,573 56
Yukon Territory	1,035·08			4,039 09		5,074·17	3,737·37	8,161 58								1,336·80	5,074 17
Sundries	8,612·54					8,612·54										8,612·54	8,612 54
Totals	21,491,982·79	*258·27 6,490,682 54	†179·39 45,480·20	3,187,692·79	69,993·59	31,286,269·57	4,021,090·63	8,690,807 36	3,187,692·79	44,701·88	369,168·03	295,765 52	7,465·56	275,910·72	*155,807·29 474,033·31	22,454,633·84	31,286,269 57
1916.																	
Ontario	19,229,647·28	2,819,812·33	81,627·20	1,418,445 48	7,439·67	23,556,971·96	1,439,365·49	3,441,182 81	2,642,989·31	146,559·83	342,243·16	203,935·23	6,031·39	807,350·69	*161,044·11 747,284·86	17,060,167·80	23,556,971 96
Quebec	2,655,948·92	*13·98 1,113,044 83	†1,426·27 5,278·33	1,386,668 90	11,868·78	5,174,250·01	1,339,778·75	3,207,638 81	949,188·29	22,255·06	92,511·15	7,914 12	1,993 38	294 85	323,663·79	2,437,250·62	5,174,250 01
New Brunswick	19,847·20			89,622·22	1,763·38	111,232·80	76,698·78	184,230 75					71 44		11,611 73	22,850·85	111,232 80
Nova Scotia	5,604·04			34,724 08	275·71	40,603·83	24,671·85	83-238 61	188·42					316 14		5,427·42	40,603 83
Prince Edward Island								37 31									
Manitoba	61,372·25			370,532·11	16,819·48	448,623·84	332,483 68	795,650 38	12,516·57	464·33			88·61		51,200·23	51,870·42	448,623 84
Saskatchewan	19,378·28			108,372·12	343·59	128,093·99	119,778·19	287,641 21	1,038·01							7,277·79	128,093 99
Alberta	44,707·55			134,791·94	3,517·16	183,016·65	136,484·79	327,718 02	2,172·97						18,930·79	25,428·10	183,016 65
British Columbia	408,278·98	8,247·63		75,442·02	2,674·11	494,642·74	147,492·12	354,058 13	13,082·10	34·68	8,936·00	5,210·46	1,869 98	172·89	8,268 52	309,575·99	494,642 74
Yukon Territory	1,336·80			2,576·80		3,913 60	2,570·75	6,169 77								1,342·85	3,913 60
Sundries	8,612·54					8,612 54										8,612·54	8,612 54
Totals	22,454,633·84	*13·98 3,941,104·79	†1,426·27 86,905·53	3,621,175·67	44,701·88	30,149,961·96	3,629,324·40	8,687,565 80	3,621,175·67	169,313 90	443,690 31	217,059 81	10,054 80	808,134·57	*161,044·11 1,160,359·92	19,929,804·47	30,149,961 96

* Surplus in bottling room. † Seizure. * Used in the manufacture of Methylated Spirits at Government Warehouse, Ottawa.

	1915.	1916.
Total duty collected ex-manufactory and ex-warehouse	$8,702,981 42	$8,697,324 68
License fees	3,500 00	3,750 00
	$8,706,481 42	$8,701,074 68

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A—*Continued*—MALT.

No. 6.—RETURN of Manufactures for the Fiscal Year ended March 31, 1916.

Divisions.	Licenses. No.	Licenses. Fees.	Grain Steeped.	Grain used in Malt Manufactured.	Malt. Manufactured.	Malt. Paid Duty.	Malt. Warehoused.	Total Duty Collected ex-manufactory, including License Fees.
		$	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	$ cts.
Belleville, Ont.	1	50	166,717	166,717	130,355	.....	130,355	50 00
Brantford, "	1	50	282,000	282,000	225,009	.....	225,009	50 00
Guelph, "	5	550	5,025,998	4,776,959	3,781,635	627	3,781,008	568 81
Hamilton, "	2	350	2,915,940	2,904,370	2,310,790	40	2,310,750	351 20
London, "	2	400	3,940,200	4,124,475	3,223,715	.....	3,223,715	400 00
Owen Sound, "	1	200	1,142,060	1,427,000	1,130,010	.....	1,130,010	200 00
Peterborough, "	1	50	304,667	304,667	233,898	40	233,858	51 20
Prescott, "	1	50	24,243	42,925	34,207	.....	34,207	50 00
Toronto, "	3	600	10,670,620	10,936,300	8,413,868	340	8,413,528	610 20
Windsor, "	1	200	.....	.....	.....	.....	.....	200 00
Totals.....	18	2,500	24,472,385	24,965,413	19,483,487	1,047	19,482,440	2,531 41
Montreal, Que...	4	800	36,211,300	36,695,300	29,021,670	.....	29,021,670	800 00
Quebec, " ...	1	150	122,520	211,141	170,197	.....	170,197	150 00
Totals.....	5	950	36,333,820	36,906,441	29,191,867	.....	29,191,867	950 00
Winnipeg, Man..	3	550	19,631,675	19,701,275	15,999,787	1,899	15,997,888	606 97
Calgary, Alta ...	3	500	12,721,800	11,542,000	9,378,070	.....	9,378,070	500 00
Victoria, B.C....	1	100	.....	.....	.....	.....	.....	100 00
Grand Totals	30	4,600	93,159,680	93,115,129	74,053,211	2,946	74,050,265	4,688 38

J. U. VINCENT,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

APPENDIX A.—MALT—*Continued.*

No. 7.—COMPARATIVE STATEMENT of Manufactures for the Fiscal Years ended March 31, 1915 and 1916.

Provinces.	Licenses.		Grain Steeped.	Grain used in Malt Manufactured.	Malt.			Total Duty Collected ex-manufactory, including License Fees.
	No.	Fees.			Manufactured.	Paid Duty.	Warehoused.	
1915.		$	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	$ cts.
Ontario	24	2,950	30,839,372	31,611,233	25,338,245	.....	25,338,245	2,950 00
Quebec	5	1,350	47,245,229	47,279,818	37,957,558	.....	37,957,558	1,350 00
Manitoba	3	500	40,662,429	40,874,589	33,270,155	.....	33,270,155	500 00
Alberta	3	500	26,077,700	27,429,400	22,721,820	.....	22,721,820	500 00
British Columbia	1	100	470,943	517,944	421,411	.....	421,411	100 00
Totals	36	5,400	145,295,673	147,712,984	119,709,189	.....	119,709,189	5,400 00
1916.								
Ontario	18	2,500	24,472,385	24,965,413	19,483,487	1,047	19,482,440	2,531 41
Quebec	5	950	36,333,820	36,906,441	29,191,867	.....	29,191,867	950 00
Manitoba	3	550	19,631,675	19,701,275	15,999,787	1,899	15,997,888	606 97
Alberta	3	500	12,721,800	11,542,000	9,378,070	.....	9,378,070	500 00
British Columbia	1	100	.....	.....	.....	.....	.....	100 00
Totals	30	4,600	93,159,680	93,115,129	74,053,211	2,946	74,050,265	4,688 38

J. U. VINCENT,
Deputy Minister.

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

7 GEORGE V, A. 1917

APPENDIX A.—

DR. No. 8.—WAREHOUSE RETURN for

Remaining in Warehouse from last year.	Warehoused.	Increases.	Received from other Divisions.		Imported.	Totals.	Divisions.
			Removed during year.	In Transit last year.			
Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	
135,961	130,355	2,249	988,400	.....	.....	1,256,965	Belleville, Ont.....
216,659	225,009	2,711	.....	.....	.....	444,379	Brantford, " .....
2,384,537	3,781,008	75,063	1,891,545	151,000	40,000	8,323,153	Guelph, " .....
1,633,801	2,310,750	34,923	2,258,000	90,000	.....	6,327,474	Hamilton, " .....
.....	.....	1,228	334,000	.....	.....	335,228	Kingston, " .....
2,461,416	3,223,715	40,414	428,000	.....	68,953	6,222,498	London, " .....
11,875	.....	932	781,600	54,000	17,500	865,907	Ottawa, " .....
1,292,161	1,130,010	58,128	466,600	.....	.....	2,946,899	Owen Sound " .....
11,228	.....	10	1,740,000	120,000	3,000	1,874,238	Perth, " .....
7,823	233,858	3,817	240,000	.....	.....	485,498	Peterborough, " .....
31,040	.....	.....	800,000	60,000	2,160	893,200	Port Arthur, " .....
58,909	34,207	1,580	2,024,970	50,000	.....	2,169,666	Prescott, " .....
20,930	.....	2,570	1,363,432	40,000	.....	1,426,932	St. Catharines," .....
.....	.....	.....	311,338	.....	.....	311,338	Stratford, " .....
6,637,809	8,413,528	91,541	4,828,927	90,000	22,612	20,084,417	Toronto, " .....
952,385	.....	4,940	1,805,028	40,000	413,860	3,216,213	Windsor, " .....
15,856,534	19,482,440	320,106	20,261,840	695,000	568,085	57,184,005	..Totals. .....
57,617	.....	15,235	2,880,000	40,000	.....	2,992,852	Joliette, Que...
13,159,384	29,021,670	252,637	3,622,320	.....	266,001	46,322,012	Montreal, " ...
.....	170,197	.....	1,614,000	60,000	.....	1,844,197	Quebec " ...
.....	.....	.....	64,680	35,000	.....	99,680	St. Hyacinthe, " ...
3,455	.....	.....	550,000	50,000	.....	603,455	Sherbrooke, " ...
.....	.....	.....	164,600	.....	.....	164,600	Three Rivers, " ...
13,220,456	29,191,867	267,872	8,895,600	185,000	266,001	52,026,796	....Totals. .....
.....	.....	.....	1,080,000	100,000	2,469	1,182,469	St. John, N.B.. ...
63,500	.....	.....	3,084,089	54,000	3,550	3,205,139	Halifax, N.S.....
12,458,303	15,997,888	177,723	1,479	.....	17,440	28,652,833	Winnipeg, Man .....
63,840	.....	.....	620,000	46,000	.....	723,840	Moose Jaw, Sask.....
6,231,506	9,378,070	60,748	660,000	60,000	7,600	16,397,924	Calgary, Alta.....
231,793	.....	.....	3,656,000	84,213	242,896	4,214,902	Vancouver, B.C.....
.....	.....	.....	1,930,000	80,000	209,979	2,219,979	Victoria, B.C.....
231,793	.....	.....	5,586,000	164,213	452,875	6,434,881	....Totals . .....
2,495	.....	2,999	.....	.....	61,470	66,964	Dawson, Y.T.....
48,128,427	74,050,265	829,448	40,189,008	1,298,213	1,379,490	165,874,851	....Grand Totals.....

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

MALT—*Continued.*

the Fiscal Year ended March 31, 1916. CR.

Entered for Consumption.		Removed to other Divisions.		Exported.	Free.	Written off.	Remaining in Warehouse.	Totals.
Quantity.	Duty.	Warehoused in Divisions to which Removed	In Transit.					
Lbs.	$ cts.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
1,140,110	34,203 30						116,855	1,256,965
279,697	8,390 91						164,682	444,379
4,741,064	142,231 92	1,130,027				618	2,451,444	8,323,153
3,711,093	111,332 79	1,742,300	90,800				783,281	6,327,474
307,048	9,211 44						28,180	335,228
4,121,487	123,644 61						2,101,011	6,222,498
865,907	25,977 21							865,907
571,591	17,147 73	2,362,508					12,800	2,946,899
1,863,000	55,890 00				5,845	5,393		1,874,238
387,500	11,625 00						97,998	485,498
875,640	26,269 20						17,560	893,200
2,169,666	65,089 98							2,169,666
1,336,932	40,107 96						90,000	1,426,932
275,555	8,266 65						35,783	311,338
13,929,042	418,323 50	240,000			278,023		5,637,352	20,084,417
2,064,244	61,937 01				563,279		588,690	3,216,213
38,639,576	1,159,649 21	5,474,835	90,800		847,147	6,011	12,125,636	57,184,005
					2,920,800		72,052	2,992,852
24,873,957	746,218 71	14,101,600	390,000	2,466,890		27,490	4,462,075	46,322,012
1,844,197	55,325 91							1,844,197
79,680	2,390 40						20,000	99,680
574,355	17,230 65						29,100	603,455
164,600	4,938 00							164,600
27,536,789	826,103 67	14,101,600	390,000	2,466,890	2,920,800	27,490	4,583,227	52,026,796
1,182,469	35,474 07							1,182,469
3,172,399	95,171 97			32,040			700	3,205,139
6,186,659	185,599 77	14,765,028	924,000				6,777,146	28,652,833
691,040	20 731 20						32,800	723,840
5,831,793	174,953 79	5,757,545	1,140,000	2,200			3,666,386	16,397,924
3,990,849	119,665 47	50,000					174,053	4,214,902
2,179,979	65,399 37	40,000						2,219,979
6,170,828	185,064 84	90,000					174,053	6,434,881
62,091	1,862 73						4,873	66,964
89,473,644	2,684,611 25	40,189,008	2,544,800	2,501,130	3,767,947	33,501	27,364,821	165,874,851

J. U. VINCENT,
Deputy Minister

12—7½

APPENDIX A.—

DR. No. 9.—COMPARATIVE STATEMENT of Warehouse Returns

Remaining in Warehouse from last year.	Warehoused.	Increases.	Received from other Divisions.		Imported.	Totals.	Provinces.
			Removed during year.	In Transit last year.			
Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	1915.
	*88,919						
17,806,783	25,338,245	308,064	21,473,763	948,158	1,369,660	67,333,592	Ontario
9,063,601	37,957,558	121,349	7,088,446	760,000	539,515	55,530,469	Quebec
			740,000	60,000	4,056	804,056	New Brunswick
49,180			2,910,000	54,000	1,700	3,014,880	Nova Scotia
	*119,073						
7,400,670	33,270,155	119,090			131,614	41,040,602	Manitoba
63,200			1,660,000		9,100	1,732,300	Saskatchewan
3,282,267	22,721,820	164,548	2,062,600	60,000	444,916	28,736,151	Alberta
150,975	421,411	355	6,665,928	397,727	863,026	8,499,422	British Columbia
55,244						55,244	Yukon Territory
	*207,992						
37,871,920	119,709.189	713,406	42,600,737	2,279,885	3,363,587	206,746.716	Totals
							1916.
15,856,534	19,482,440	320,106	20,261,840	695,000	568,085	57,184,005	Ontario
13,220,456	29,191,867	267,872	8,895,600	185,000	266,001	52,026,796	Quebec
			1,080,000	100,000	2,469	1,182,469	New Brunswick
63,500			3,084,089	54,000	3,550	3,205,139	Nova Scotia
12,458,303	15,997,888	177,723	1,479		17,440	28,652,833	Manitoba
63,840			620,000	40,000		723,840	Saskatchewan
6,231,506	9,378,070	60,748	660,000	60,000	7,600	16,397,924	Alberta
231,793			5,586,000	164,213	452,875	6,434,881	British Columbia
2,495		2.999			61,470	66,964	Yukon Territory
48,128,427	74,050,265	829,448	40,189,008	1,298,213	1,379,490	165,874,851	Totals

* Otherwise warehoused.

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

MALT—*Continued.*

for the Fiscal Years ended March 31, 1915 and 1916. CR.

Entered for Consumption.		Removed to other Divisions.		Exported.	Free.	Written off	Remaining in Warehouse.	Totals.
Quantity.	Duty.	Warehoused in Divisions to which Removed.	In Transit.					
Lbs.	$ cts.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
44,378,291	1,011,454 64	5,936,409	240,000	54,400	853,357	14,601	15,856,534	67,333,592
28,048,155	678,898 32	11,131,400	393,000	152,000	2,585,458	.....	13,220,456	55,530,469
804,056	17,221 68	.....	.....	.....	.....	.....	.....	804,056
2,929,600	70,678 50	.....	.....	21,780	.....	.....	63,500	3,014,880
11,969,299	280,803 15	16,163,000	450,000	.....	.....	.....	12,458,303	41,040,602
1,668,460	38,291 10	.....	.....	.....	.....	.....	63,840	1,732,300
13,057,645	330,616 03	9,276,000	171,000	.....	.....	.....	6,231,506	28,736,151
8,129,488	182,013 24	93,928	44,213	.....	.....	.....	231,793	8,499,422
52,749	911 16	.....	.....	.....	.....	.....	2,495	55,244
111,037,743	2,610,887 82	42,600,737	1,298,213	228,180	3,438,815	14,601	48,128,427	206,746,716
38,639,576	1,159,649 21	5,474,835	90,800	.....	847,147	6,011	12,125,636	57,184,005
27,536,789	826,103 67	14,101,600	390,000	2,466,890	2,920,800	27,490	4,583,227	52,026,796
1,182,469	35,474 07	.....	.....	.....	.....	.....	.....	1,182,469
3,172,399	95,171 97	.....	.....	32,040	.....	.....	700	3,205,139
6,186,659	185,599 77	14,765,028	924,000	.....	.....	.....	6,777,146	28,652,833
691,040	20,731 20	.....	.....	.....	.....	.....	32,800	723,840
5,831,793	174,953 79	5,757,545	1,140,000	2,200	.....	.....	3,666,386	16,397,924
6,170,828	185,064 84	90,000	.....	.....	.....	.....	174,053	6,434,881
62,091	1,862 73	.....	.....	.....	.....	.....	4,873	66,964
89,473,644	2,684,611 25	40,189,008	2,544,800	2,501,130	3,767,947	33,501	27,364,821	165,874,851

	1915.	1916.
Total duty collected ex-manufactory and ex-warehouse	$2,610,887 82	$2,684,699 63
License fees	5,400 00	4,600 00
	$2,616,287 82	$2,689,299 63

J. U. VINCENT,
Deputy Minister.

APPENDIX A—*Continued*—MALT LIQUOR.

No. 10.—RETURN of Manufactures for the Fiscal Year ended March 31, 1916.

Divisions.	Licenses. No.	Licenses. Fees.	Malt used.	Other Commodities used.	Malt Liquor manufactured.	Malt Liquor warehoused.	Malt Liquor exported, and used by H.M. Army and Navy.	Total Duty collected ex-manufactory including License Fees.
		$	Lbs.	Lbs.	Galls.	Galls.	Galls.	$
Belleville, Ont.	1	50	159,594		71,809			50 00
Brantford, "	1	50	329,964		141,530			50 00
Guelph, "	7	350	4,585,698		2,380,560			350 00
Hamilton, "	2	100	3,628,092		1,792,104			100 00
Kingston, "	2	100	337,537		131,550			100 00
London, "	4	200	4,021,507		1,639,825		1,252	200 00
Ottawa, "	2	100	1,339,342		703,450			100 00
Owen Sound, "	4	200	502,995		215,720			200 00
Perth, "	1	50	1,842,000		911,924			50 00
Peterborough, "	1	50	389,700		144,001			50 00
Port Arthur, "	3	150	896,093		435,460			150 00
Prescott, "	3	150	2,003,960		972,948			150 00
St. Catharines, "	2	100	1,317,500		627,850			100 00
Stratford, "	2	100	278,538		142,200			100 00
Toronto, "	11	550	14,090,124		6,424,055			550 00
Windsor, "	2	100	1,663,336		860,853			100 00
Totals	48	2,400	37,390,989		17,595,839		1,252	2,400 00
Montreal, Que	9	450	21,247,405	117,710	9,682,287		4,411½	27,499 95
Quebec, "	3	150	4,067,198		1,720,065			150 00
Sherbrooke "	1	50	574,505		330,384			50 00
Three Rivers "	1	50	169,058		71,000			50 00
Totals	14	700	26,058,166	117,710	11,803,736		4,411½	27,749 95
St. John, N.B	2	100	1,097,208		427,816			100 00
Halifax, N.S.	3	150	3,167,115		1,091,450		7,946	150 00
Winnipeg, Man.	8	400	5,600,558	41,800	2,658,488			9,347 05
Moose Jaw, Sask.	4	200	745,486	11,000	376,625			2,956 25
Calgary, Alta.	7	350	5,105,285	18,000	2,534,350			5,797 10
Vancouver, B.C.	19	950	4,047,539	278,100	2,128,649	114,706	78	22,302 50
Victoria "	8	400	2,218,919	19,225	954,982			4,351 15
Totals	27	1,350	6,266,458	297,325	3,083,631	114,706	78	26,653 65
Dawson, Y.T.	1	50	70,591		31,145			50 00
Grand Totals	114	5,700	85,501,847	485,835	39,603,080	114,706	13,687½	75,204 00

INLAND REVENUE DEPARTMENT
OTTAWA, JULY 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—MALT LIQUOR—*Continued.*

No. 11.—Comparative Statement of Manufactures for the Fiscal Years ended March 31, 1915 and 1916.

Provinces.	Licenses. No.	Licenses. Fees.	Malt used.	Other Commodities used.	Malt Liquor manufactured.	Malt Liquor warehoused.	Malt Liquor exported, and used by H.M. Army and Navy.	Total Duty collected, ex-manufactory, including License Fees.
1915.		$	Lbs.	Lbs.	Galls.	Galls.	Galls.	$ cts.
Ontario	51	2,550	44,555,185	76,055	20,829,318		6,683	2,940 00
Quebec	15	750	27,820,265	117,600	12,633,459			22,676 55
New Brunswick	2	100	1,148,857		472,004			100 00
Nova Scotia	3	150	3,302,430		1,095,450		3,078	150 00
Manitoba	7	350	9,521,467	35,910	4,359,030			9,649 50
Saskatchewan	4	200	1,725,440	64,225	876,572			12,465 00
Alberta	7	350	7,662,381	146,250	3,458,052			27,707 55
British Columbia	28	1,400	8,542,622	518,970	4,276,077	57,872		66,072 93
Yukon Territory	1	50	52,749		23,618			50 00
Totals	118	5,900	104,331,396	959,010	48,023,580	57,872	9,761	141,811 53
1916.								
Ontario	48	2,400	37,390,980		17,595,839		1,252	2,400 00
Quebec	14	700	26,058,166	117,710	11,803,736		4,411½	27,749 95
New Brunswick	2	100	1,097,208		427,816			100 00
Nova Scotia	3	150	3,167,115		1,091,450		7,946	150 00
Manitoba	8	400	5,600,558	41,800	2,658,488			9,347 05
Saskatchewan	4	200	745,486	11,000	376,625			2,956 25
Alberta	7	350	5,105,285	18,000	2,534,350			5,797 10
British Columbia	27	1,350	6,266,458	297,325	3,083,631	114,706	78	26,653 65
Yukon Territory	1	50	70,591		31,145			50 00
Totals	114	5,700	85,501,847	485,835	39,603,080	114,706	13,687½	75,204 00

	1915. Galls.	1916. Galls.
Exported	9,761	3,050
H.M. Army and Navy		10,637½
	9,761	13,687½

Inland Revenue Department,
Ottawa, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—MALT LIQUOR—*Continued.*

No. 12.—Warehouse Return for the Fiscal Year ended March 31, 1916.

Remaining in Warehouse from Last Year.	Warehoused.	Total.	Division.	Entered for Consumption.		Exported.	Remaining in Warehouse.	Total.
				Quantity.	Duty.			
Galls.	Galls.	Galls.		Galls.	$ cts.	Galls.	Galls.	Galls.
50,594	114,706	165,300	Vancouver, B.C.	150,503	22,575 45	3,955	10,842	165,300

Inland Revenue Department,
Ottawa, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—MALT LIQUOR—*Concluded.*

No. 13.—Comparative Statement of Warehouse Returns for the Fiscal Years ended March 31, 1915 and 1916.

Remaining in Warehouse from Last Year.	Warehoused.	Total.	Province.	Entered for Consumption.		Exported.	Remaining in Warehouse.	Total.
				Quantity.	Duty.			
Galls.	Galls.	Galls.	1915.	Galls.	$ cts.	Galls.	Galls.	Galls.
... .	57,872	57,872	British Columbia	7,278	1,001 70	.....	50,594	57,872
			1916.					
50,594	114,706	165,300	British Columbia	150,503	22,575 45	3,955	10,842	165,300

	1915.	1916.
Total duty collected ex-manufactury and ex-warehouse. ...	$137,003 23	$ 92,079 45
License fees	5,900 00	5,700 00
	$142,903 23	$ 97,779 45

Inland Revenue Department,
Ottawa, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—

No. 14.—Return of Manufactures for

Divisions.	Licenses.		Total Weight of Raw Leaf Tobacco and other Materials actually used.	Tobacco at 10c. per lb.		
	No.	Fees.		Manufactured.	Paid Duty.	Warehoused.
		$ cts.	Lbs.	Lbs.	Lbs.	Lbs.
Hamilton, Ont	1	50 00	1,722,490¼	1,622,395	584,573	1,037,822
Perth, "	...	...	6¾	...	...	...
Toronto, "	3	150 00	151,388¾	155,677½	25,499½	130,178
Windsor, "	3	150 00	158,257	158,781½	158,781½	...
Totals	7	350 00	2,032,142¾	1,936,854	768,854	1,168,000
Joliette, Que	9	450 00	80,959	81,959	81,939	20
Montreal, "	39	1,950 00	13,497,049¾	11,056,393½	4,504,314	6,552,079¼
Quebec, "	6	300 00	3,565,507	3,642,263½	3,603,482	38,781½
St. Hyacinthe, Que	5	250 00	12,889	13,338	13,338	...
Sherbrooke, "	1	50 00	3,547,505	3,708,522	3,690,290½	18,231½
Three Rivers, "	4	200 00	89,108	85,451½	85,451½	...
Totals	64	3,200 00	20,793,017¾	18,587,927½	11,978,815	6,609,112½
Pictou, N.S.	1	50 00	4,769½	5,963½	5,963½	...
Charlottetown, P.E.I.	4	200 00	197,926	232,276	231,497	779
Winnipeg, Man.	2	75 00	462½	348	348	...
Calgary, Alta	3	150 00	9,395	9,395	9,395	...
Vancouver, B.C.	2	100 00	5,923	2,382½	2,042	340½
Grand Totals	83	4,125 00	23,043,636½	20,775,146½	12,996,914½	7,778,232

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

TOBACCO.

the Fiscal Year ended March 31, 1916.

Cigarettes at $3.00 per M.			Cigarettes at $8 per M.			Snuff at 10c. per lb.			Total Duty Collected ex-manufactory, including License Fees.
Manufactured.	Paid Duty.	Warehoused.	Manufactured.	Paid Duty.	Warehoused.	Manufactured.	Paid Duty.	Warehoused.	
No.	No.	No.	No.	No.	No.	No.	No.	No.	$ cts.
59,387,620	35,862,150	23,525,470							166,093 75
3,000	3,000								9 00
169,800	169,800								3,209 35
									16,028 15
59,560,420	36,034,950	23,525,470							185,340 25
									8,643 90
1,294,057,955	1,022,896,500	271,161,455	1,215,660	1,162,760	52,900	508,877	508,127	750	3,581,185 68
576,750	511,750	65,000				36,110	36,110		365,794 45
									1,583 80
									369,079 05
									8,745 15
1,294,634,705	1,023,408,250	271,226,455	1,215,660	1,162,760	52,900	544,987	544,237	750	4,335,032 03
									646 35
									23,349 70
62,200	62,200								296 40
									1,089 50
1,372,450	1,001,950	370,500	650	650					3,315 28
1,355,629,775	1,060,507,350	295,122,425	1,216,310	1,163,410	52,900	544,987	544,237	750	4,549,069 51

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—

No. 15.—Comparative Statement of Manufactures for

Provinces.	Licenses.		Total Weight of Raw Leaf Tobacco and other Materials actually used.	Tobacco at 10c. per lb.		
	No.	Fees.		Manufactured.	Paid Duty.	Warehoused.
1915.		$ cts.	Lbs.	Lbs.	Lbs.	Lbs.
Ontario	10	500 00	1,531,606¼	1,496,342½	775,590½	720,752
Quebec	64	3,100 00	20,444,444½	18,679,978½	12,542,620½	6,137,358
Nova Scotia	1	50 00	13,757	13,409½	10,050½	3,359
Prince Edward Island	4	200 00	205,341	236,629½	236,629½	.....
Manitoba	2	75 00	978	588	588	.....
Alberta	3	150 00	10,125	10,196	10,196	.....
British Columbia	5	250 00	5,250	3,548¾	3,548¾	.....
Totals	89	4,325 00	22,211,501¾	20,440,692¾	13,579,223¾	6,861,469
1916.						
Ontario	7	350 00	2,032,142¾	1,936,854	768,854	1,168,000
Quebec	64	3,200 00	20,793,017¾	18,587,927½	11,978,815	6,609,112½
Nova Scotia	1	50 00	4,769½	5,963½	5,963½	.....
Prince Edward Island	4	200 00	197,926	232,276	231,497	779
Manitoba	2	75 00	462½	348	348	.....
Alberta	3	150 00	9,395	9,395	9,395	.....
British Columbia	2	100 00	5,923	2,382½	2,042	340½
Totals	83	4,125 00	23,043,636½	20,775,146½	12,996,914½	7,778,232

Inland Revenue Department,
Ottawa, July 1, 1916.

SESSIONAL PAPER No. 12

TOBACCO—*Continued.*

the Fiscal Years ended March 31, 1915, and 1916.

Cigarettes at $3 per M.			Cigarettes at $8 per M.			Snuff at 10c. per lb.			Total Duty Collected ex-Manufactory, including License Fees.
Manufactured.	Paid Duty.	Warehoused.	Manufactured.	Paid Duty.	Warehoused.	Manufactured	Paid Duty.	Warehoused.	
No.	No.	No.	No.	No.	No.	Lbs.	Lbs.	No.	$ cts.
28,174,820	27,989,570	185,250	.....	.....	.....	.....	.....	.....	142,144 91
1,058,879,346	1,032,425,036	26,454,310	960,330	947,330	13,000	509,597	509,597	.....	3,898,900 36
.....	.....	.....	.....	.....	.....	.....	.....	.....	782 16
.....	.....	.....	.....	.....	.....	.....	.....	.....	20,002 58
186,200	186,200	.....	.....	.....	.....	.....	.....	.....	656 88
.....	.....	.....	.....	.....	.....	.....	.....	.....	975 85
657,960	595,160	62,800	.....	.....	.....	.....	.....	.....	2,361 65
1,087,898,326	1,061,195,966	26,702,360	960,330	947,330	13,000	509,597	509,597	.....	4,065,824 39
59,560,420	36,054,950	23,525,470	.....	.....	.....	.....	.....	.....	185,340 25
1,294,634,705	1,023,408,250	271,226,455	1,215,660	1,162,760	52,900	544,987	544,237	750	4,335,032 03
.....	.....	.....	.....	.....	.....	.....	.....	.....	646 85
.....	.....	.....	.....	.....	.....	.....	.....	.....	23,349 70
62,200	62,200	.....	.....	.....	.....	.....	.....	.....	296 40
.....	.....	.....	.....	.....	.....	.....	.....	.....	1,089 50
1,372,450	1,001,950	370,500	650	650	.....	.....	.....	.....	3,315 28
1,355,629,775	1,060,507,350	295,122,425	1,216,310	1,163,410	52,900	544,987	544,237	750	4,549,069 51

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—TOBACCO—*Continued*—MANUFACTURED BEFORE JUNE 1, 1908.

No. 16.—WAREHOUSE RETURN for the Fiscal Year ended March 31, 1916.

Dr. Cr.

Remaining in Warehouse from last year.	Totals.	Divisions.	Entered for Consumption.		Ship's Stores.	Remaining in Warehouse.	Totals.
			Quantity.	Duty.			
lbs.	lbs.		lbs.	$ cts.	lbs.	lbs.	lbs.
461	461	St. John, N.B.	....	.....	.....	461	461
3,919½	3,919½	Victoria, B.C.	175	43 75	372½	3,372	3,919½
19,719½	19,719½	Sundries	....	....	.....	19,719½	19,719½
24,100	24,100	Totals	175	43 75	372½	23,552½	24,100

INLAND REVENUE DEPARTMENT.
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—TOBACCO—*Continued*—MANUFACTURED BEFORE JUNE 1, 1908.

No. 17—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1915 and 1916.

Dr. Cr.

Remaining in Warehouse from last year.	Totals.	Provinces.	Entered for Consumption.		Ship's Stores.	Remaining in Warehouse.	Totals.
			Quantity.	Duty.			
lbs.	lbs.	1915.	lbs.	$ cts.	lbs.	lbs.	lbs.
461	461	New Brunswick,	.... ..	....	....	461	461
3,999½	3,999½	British Columbia	.... .	....	80	3,919½	3,999½
19,719½	19,719½	Sundries	....	.. ..	....	19,719½	19,719½
24,180	24,180	Totals	.....	.....	80	24,100	24,180
		1916.					
461	461	New Brunswick	.. ..	.....	.....	461	461
3,919½	3,919½	British Columbia	175	43 75	372½	3,372	3,919½
19,719½	19,719½	Sundries	.....	.....	....	19,719½	19,719½
24,100	24,100	Totals	175	43 75	372½	23,552½	24,100

INLAND REVENUE DEPARTMENT.
OTTAWA, July 1, 1916

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—TOBACCO—*Continued.*

No. 18.—Warehouse Return for the Fiscal Year ended March 31, 1916.

Dr. Cr.

Remaining in Warehouse from last year.	Warehoused	Received from other Divisions.					Totals				Division.	Entered for Consumption.			Removed to other Divisions.								Exported.		Army, Navy, and Ships' Stores.				Free and Unrestricted.		Taken for re-working.		Remaining in Warehouse				Totals.			
		Tobacco.			Cigarettes.	Overweight Cigarettes.									Tobacco.		Cigarettes.		Overweight Cigarettes.		Snuff.																			
		Removed during year.		In Transit last year.	Removed during year.	Removed during year.									Warehoused in Division which Removed.	In Transit.	Warehoused in Division which Removed.	In Transit.	Warehoused in Division which Removed.	In Transit.	Warehoused in Division which Removed.	In Transit.																		
Tobacco.	Cigars.	Overweight Cigarettes.	Snuff.	Tobacco.	Snuff.	Cigarettes.	Overweight Cigarettes.	Tobacco.	Cigars.	Overweight Cigarettes.	Snuff.		Tobacco.	Cigarettes.	Duty.								Tobacco.	Cigarettes.	Tobacco.	Cigarettes.	Overweight Cigarettes.	Snuff.	Tobacco.	Cigarettes.	Tobacco.	Cigarettes.	Tobacco.	Cigarettes.	Overweight Cigarettes.	Snuff.	Tobacco.	Cigarettes.	Overweight Cigarettes.	Snuff.
Lbs.		No.	Lbs.	Lbs.	No.	No.	Lbs.		No.	Lbs.		Lbs.	No.	$ cts.	Lbs.	Lbs.	No.	No.	No.	No.	Lbs.	Lbs.	Lbs.	No.	Lbs.	No.	No.	Lbs.	Lbs.	No.	Lbs.	No.	Lbs.	No.	No.	Lbs.	Lbs.	No.	No.	Lbs.
				1,990			1,990				Belleville, Ont.	1,990		199 00																				1,990			
176,868							1,417,785		2,470		Hamilton, "	936,814½	46,500	94,029 00	4,348½		2,271,040	20800					85,653½	16,221,370	5,438½	2,144,800					13,829		389,245½	2,884,300			1,297,300½	23,925,470		
				23,129			23,129				Owen Sound, Ont.	23,129		2,312 90																				23,129			
				1,000			1,000				Perth, "	1,000		100 00																				456			
				27,000			27,000				Stratford, "	26,624		2,662 40																				27,000			
19,673				16,151		15,502,750	54,922	1,000		1,000	Toronto, "	123,300		12,330 00									128		12,944½	13,703,750							30,430½	1,885,000	500		165,902	15,502,750	1,000	
196,541				69,341		15,502,750	1,436,825	1,000	2,470	1,000	Totals	1,114,844½	46,500	111,654 30	4,348½		2,271,040	20800					85,781½	16,221,370	17,382½	15,848,550					13,829		390,202	4,473,300	500		1,466,482½	39,113,220	1,000	
							26				Joliette, Que.												20												26			
341,476	2,000	750		3,118		252,000	8,882,753	52,000	750		Montreal, "	5,859,154½	39,387,950	642,869 24	240,850½	11,103	44,287,740	2,373,760	2,000	2,500	600	100	173,644½	137,974,050	53,474	44,883,150	48	00	50	15	500	7,576½	70,000	555,580	23,574,300			6,892,653½	273,661,555	52,000	750
				3,707		7,037,000	42,578		2,000	750	Quebec "	36,618	51,000	2,213 58	7,164	400	137,500						290		13,241	6,459,000							885			841,200			42,578	7,208,200		
							18,331				Sherbrooke, Que.	172		17 20	13,394	1,005							1,106		2,401½												18,231½			
341,476	2,000	750		6,825		7,289,000	9,067,662	52,000	2,750		Totals	5,879,944½	39,438,950	645,099 82	261,408½	12,508	44,425,240	2,373,760	2,000	2,500	600	100	175,040½	137,974,050	69,117½	51,342,150	48	00	50	15	500	8,461½	70,000	558,589	24,415,500			6,953,483½	280,869,855	52,000	750
				20,000			20,000																										1,056	602,000			84,738	4,189,000	1,000	
				46,548		4,969,500	46,738	1,000	11,000	1,000	Halifax, N.S.	42,061		4,206 10			25,000								15,000	3,621	3,437,500													
							779				Charlottetown, P.E.I.																							779						
											Winnipeg, Man.		39,000	390 00											16,635½	9,602,100							5,000½	3,257,000	110		16,236	12,570,000		600
											Calgary, Alberta																									25,500			
				28,123	944	7,480,000	28,123	944	7,480,000		Vancouver, B.C.	12,624½	158,500	1,617 [illegible]	160	50	859,000								11,926	6,367,700							312		4,870½	494,300			29,422	7,859,500		
				100,805		1,064,000	100,805		1,064,000		Victoria "	99,033½		9,903 35											370	363,500									760	200,000			100,463½	1,064,000		
				128,928	944	8,544,000	128,928	944	8,544,000		Totals	111,658	158,500	11,521 35	160	50	859,000								12,296	7,231,200							312		5,630½	694,300			130,185½	8,923,500		
				975			975				Dawson, Y. T.	975		97 50																				975						
539,945½	2,000	750		77,473	944	47,679,750	9,564,699½	53,944	21,294,750	1,750	Grand Totals	7,149,444½	39,653,950	777,691 37	274,920	12,918	47,679,750	2,641,760	2,000	2,500	1,800	100	260,962	154,210,420	95,363	86,930,740	48	00	50	15	500	16,867½	70,000	948,459½	28,089,800	500	110	8,564,699½	345,480,520	54,000	1,350

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—TOBACCO—*Concluded.*

No. 19. Comparative Statement of Warehouse Returns for the Fiscal Years ended March 31, 1915 and 1916.

Dr. Cr.

Remaining in Warehouse from last year					Withdrawn					Received from other Divisions					Totals					Entered for Consumption					Removed to other Divisions.														Exported.		Army, Navy, and Ship Stores.		Free and written off.		Taken for Re-working.		Remaining in Warehouse.		Totals.			
																									Tobacco.						Cigarettes.					Overnight Cigarettes	Snuff															
Tobacco	Cigarettes	Cigarettes	Overnight Cigarettes	Snuff	Tobacco	Cigarettes	Cigarettes	Overnight Cigarettes	Snuff	Tobacco	Cigarettes	Cigarettes	Overnight Cigarettes	Snuff	Tobacco	Cigarettes	Cigarettes	Overnight Cigarettes	Snuff	Provinces.	Tobacco	Cigarettes	Overnight Cigarettes	Snuff	Warehoused in Division to which removed.	In Transit	Warehoused in Division to which removed.	In Transit	Warehoused in Division to which removed.	In Transit	Warehoused in Division to which removed.	In Transit	Tobacco	Cigarettes	Tobacco	Cigarettes	Cigarettes	Overnight Cigarettes	Snuff	Tobacco	Cigarettes	Tobacco	Cigarettes	Overnight Cigarettes	Snuff	Tobacco	Cigarettes	Overnight Cigarettes	Snuff
Lbs	No.	No.	No.	Lbs.	Lbs.	No.	No.	No.	Lbs.	Lbs.	No.	No.	No.	Lbs.	Lbs.	No.	No.	No.	Lbs.	1915	Lbs.	No.	No.	Lbs.	Lbs.	Lbs.	No.	No.	No.	No.	Lbs.	Lbs.	Lbs.	No.	Lbs.	No.	Lbs.	No.	No.	Lbs.	Lbs.	Lbs.	No.	Lbs.	No.	No.	Lbs.	Lbs.	No.	No.	Lbs.
247,944½	78,000				1,000	227,500				1,629,121	277,776				1,877,065	582,276				Ontario	830,520	78,000			4,348		2,271,600	268,000							1,396½	180,250	60				199,141½		227,776			1,039,121½	227,776		
538,280	6,370,170	9,000			26,450	13,140			6,668,726	33,462,780	22,000			7,207,006	33,462,780	22,000			Quebec	6,110,121	27,498,560	22,000		46,444	58,291,438	944	983,960							7,442	297,000	4,847	1,420,650			581,456	2,354,530			95,685,926	33,462,780	22,000	
					2,200				2,200											New Brunswick	2,200				100	66																			2,266				
1,866½					4,200				4,200	969,400				974,0[illegible]	969,400				Nova Scotia	36,857				44	58	227,800														2,594				230,000			269,494	969,400		
	446,250									446,250					446,250					Manitoba					27	00																			180,000			446,250			
																				British Columbia	97,472	37,800			69	46																						97,472	62,800		
786,144½	6,894,420	9,000			33,650	240,640			7,511,704	34,809,980	22,000			8,181,206	34,809,980	22,000			Totals	7,085,741½	27,869,440	22,000		511	61,291,438	944	1,211,760							8,841½	417,250	4,907	1,593,250			581,456	2,354,530			7,964,481	34,808,980	22,000	
																				1916.																																
199,141½			168,000	1,042,450					1,042,450	39,148,228	3,000			39,347,369	39,148,228	3,000			Ontario	1,114,848½	46,500			11,454	35	4,348½																						13,820		199,202		4,423,300	500	1,426,492½	39,148,228	1,000	
331,456	2,354,350		2,750,000	261,725	43,000	750			5,440,231	28,907,805	52,000	750		5,771,731	28,907,805	52,000	750		Quebec	879,041½	20,438,560			150	92	270,417½	12,868	44,404,750	2,353,750	2,000	2,500	600	100	175,120½		137,974,650		51,079,[illegible]	51,342,[illegible]			8,461	70,000	555,580	24,285,640		6,953,485½	280,906,805	52,000	750
	2,250,000				43,738		4,199,500		4,243,238		1,000			1,000					Nova Scotia	42,061				1	00			95,000																1,000		1,925	452,000			46,738½	4,199,500	1,000	
			779		779				779											Prince Edward Island																													779			
	100,000				93,926		12,250,000		12,343,926											Manitoba		30,000			90	00															16,635½	3,022,100			109			16,726	12,250,000		689
					24,500		25,000		49,500											Alberta																					25,000				25,500			
			10	500	12,221	911	8,554,000		8,566,631											British Columbia	111,658	138,500			1	00	169	50	859,000												12,350	7,251,300						136,061	8,923,500		
					47,500				47,500											Yukon Territory	973																												973			
530,597½	2,604,350		2,750,779	261,725	43,000	750			6,178,731	34,809,950	53,000	750		6,819,731	34,809,950	53,000	750		Totals	2,149,581½	20,653,560			161	53	274,926	12,918	47,679,750	2,641,750	2,000	2,500	600	100	299,302	354	219,420	95,263	86,936,515	99,000	540	15	500	22,503½	70,000	768,484	33,293,040	500	110	8,584,666½	345,486,525	54,000	1,350

	1915.	1916.
Total duty collected by manufacturers in warehouse, including Canada Food, Raw Leaf, and Other Materials	$9,348,595 70	$10,218,608 78
License fees	4,375 00	4,175 00
Totals	$9,352,880 70	$10,222,783 78

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—RAW LEAF TOBACCO, INCLUDING

DR. No. 20.—WAREHOUSE RETURN for the

Divisions.	Remaining in Warehouse from last year.	Imported.	Warehoused ex-Factory.	Received from other Divisions.		Totals.
				Removed during year.	In transit last year.	
	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.
Belleville, Ont	674	2,114	628	707		4,123
Brantford "	18,815	18,747	888	1,146		39,596
Guelph "	10,340	5,140				15,480
Hamilton "	2,647,224½	2,036,556	195,761	151		4,879.692½
Kingston "	39,023	28,903	5,327	1,930		75,183
London "	300,656½	433,531	20,677	8,054 7/10		762,919½
Ottawa "	121	1,043		120		1,284
Owen Sound "	3,864	7,333		152		11,349
Perth "	2,034½	807			291½	3,133
Peterborough "	652	1,183		1,043		2,878
Port Arthur "	144				125	269
Prescott "	2,442	1,356		153	74	4,025
St. Catharines "	6,704	5,567			662	12,733
Stratford "	11,860	10,041		455		22,356
Toronto "	241,238	595,987½	19,348	5,792¼		862,365¾
Windsor "	10,939	29,645	1,896	9,336		51,816
Totals	3,296,731½	3,177,753½	244,525	29,039 1/10	1,152½	6,749,202 9/10
Joliette, Que	14,603⅛	6,531		3,747		24,881⅛
Montreal "	7,877,072¼	15,770,322 3/10	102,602¾	64,992½	3,890	23,818,879 1/10
Quebec "	63,061	600,164	8,583	14,656½		686,464½
St. Hyacinthe "	44,060½	109,865¼	39,587	22,808 7/10	8,933	225,254 3/10
Sherbrooke "	301,754	434,857	8,612	21,196		766,419
Three Rivers "	2,284	2,021½				4,305½
Totals	8,302,834 3/10	16,923,760 1/10	159,384¾	127,400 7/10	12,823	25,526,203 7/10
St. John, N. B.	12,528	5,705				18,233
Halifax, N. S.	564	3,569		937		5,070
Pictou "	6,719	1,945				8,664
Totals	7,283	5,514		937		13,734
Charlottetown, P. E. I.	21,254	2,290				23,544
Winnipeg, Man.	14,369	20,406	3,312	133		38,220
Moose Jaw, Sask.	2,362	1,057				3,419
Calgary, Alberta	22,012	78,676	67	672		101,427
Vancouver, B.C.	41,072	30,995	2,151	721		74,939
Victoria, "	10,009	9,775	4,975	1,864		26,623
Totals	51,081	40,770	7,126	2,585		101,562
Grand Totals	11,730,455 7/10	20,255,932 7/10	414,414¾	160,767 1/10	13,975½	32,575,545 3/10

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

STEMS, SCRAPS, AND CUTTINGS.

Fiscal Year ended March 31, 1916. CR.

Entered for Consumption.		Removed in Bond to other Divisions.		Exported.	Destroyed.	Entered for Manufacture, free.	Remaining in Warehouse.	Totals.
Quantity.	Duty.	Warehoused in divisions to which removed.	In Transit.					
Std. lbs.	$ cts	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.
2,861	801 08			628			634	4,123
28,254	7,911 12	432	1,225	888			8,797	39,596
8,145	2,390 36	839					6,496	15,480
1,986,872	556,798 76	1,862		359,745	75	161,065	2,370,073¼	4,879,692¼
38,038	10,690 96	1,102		5,327			30,716	75,183
501,164½	149,896 88	7,619/10	288	40,121			213,726	762,919½
1,035	289 80						249	1,284
8,994	3,328 22				7		2,348	11,349
879½	246 26	117½	75	2,061				3,133
2,087	584 36						791	2,878
129	36 12	140						269
3,024	857 36						1,001	4,025
6,450	1,808 38	304		137	33		5,809	12,733
12,837	3,594 36						9,519	22,356
304,240½	87,579 63	62,666		73,967	2,665		418,827½	862,365½
23,484	6,846 56	3,154	4,003	2,295	414		18,556	51,816
2,928,494¼	833,660 21	78,236½	5,591	485,079	3,194	161,065	3,087,543	6,749,263½
12,090¼	3,557 61		138				12,652½	24,881½
12,273,300/16	3,457,151 71	65,737½	1,549	260,345	5,225½	570,052	10,642,670	23,818,879¼
574,823	160,950 44			8,583			103,058½	686,464½
104,388½/16	29,955 82	13,710/16	1,856	39,587			65,711½	225,254½
489,616	137,188 94	618		14,377			261,808	766,419
2,823½	790 58						1,482	4,305½
13,457,041½/16	3,789,595 10	80,066/16	3,543	322,892	5,225½	570,052	11,087,382½/16	25,526,203½/16
7,659	2,159 92						10,574	18,233
3,804	1,109 22						1,266	5,070
4,978	1,393 84	110	129				3,447	8,664
8,782	2,503 06	110	129				4,713	13,734
3,691	1,033 48						19,853	23,544
20,614	5,914 16			3,454	78		14,074	38,220
2,306	648 48	398			35		680	3,419
83,485	23,588 74			2,653	211		15,078	101,427
45,779	13,463 24	1,750		3,701	62		23,647	74,939
13,459	4,191 60	207		5,838	29		7,090	26,623
59,238	17,654 84	1,957		9,539	91		30,737	101,562
16,571,311/16	4,676,757 99	160,767½	9,263	823,617	8,834½	731,117	14,270,644½	32,575,544½

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—RAW LEAF TOBACCO, INCLUDING

DR. No. 21.—COMPARATIVE STATEMENT of Warehouse Returns

Provinces.	Remaining in Warehouse from last year.	Imported.	Warehoused ex-Factory.	Received from other Divisions.		Totals.
				Removed during the year.	In Transit last year.	
1915	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.
Ontario	2,914,125	3,088,016 9/10	269,379	47,871 3/5	505 1/2	6,319,898
Quebec	6,584,617 5/8	14,492,156 1/8	133,745	128,091 7/8	13,228 7/8	21,351,839 1/4
New Brunswick	14,846	12,341				27,187
Nova Scotia	3,919	13,437	1,037	1,022		19,415
Prince Edward Island	24,399					24,399
Manitoba	20,981	27,814		2,216	833 1/2	51,344 1/2
Saskatchewan	4,547	4,847		438		9,832
Alberta	41,007	57,800		688	460	99,955
British Columbia	61,541	74,884	4,038	1,641		142,104
Totals	9,669,982 5/8	17,770,796 1/10	408,199	181,968 1/10	15,027 1/2	28,045,973 7/10
1916.						
Ontario	3,296,731 1/2	3,177,753 1/2	244,525	29,039 1/10	1,152 1/2	6,749,202 3/10
Quebec	8,302,834 23/40	16,923,760 1/16	159,384 3/4	127,400 7/10	12,823	25,526,203 1/16
New Brunswick	12,528	5,705				18,233
Nova Scotia	7,283	5,514		937		13,734
Prince Edward Island	21,254	2,290				23,544
Manitoba	14,369	20,406	3,312	133		38,220
Saskatchewan	2,362	1,057				3,419
Alberta	22,012	78,676	67	672		101,427
British Columbia	51,081	40,770	7,126	2,585		101,562
Totals	11,730,455 3/40	20,255,932 7/16	414,414 3/4	160,767 1/20	13,975 1/2	32,575,545 3/80

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

STEMS, SCRAPS, AND CUTTINGS—*Concluded.*

for the Fiscal Years ended March 31, 1915 and 1916. CR.

Entered for Consumption.		Removed in Bond to other Divisions.		Exported.	Destroyed	Entered for Manufacture, Free.	Remaining in Warehouse.	Totals.
Quantity.	Duty.	Warehoused in divisions to which removed.	In Transit.					
Std. lbs.	$ cts.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.	Std. lbs.
2,722,770½	786,195 02	108,032	4,629	187,735	.....	.....	3,296,731½	6,319,898
12,770,886$\frac{3}{20}$	3,600,998 12	69,202$\frac{2}{20}$	9,346½	173,303½	26,266	.....	8,302,834$\frac{13}{20}$	21,351,839$\frac{1}{8}$
14,495	4,058 60	.....	.....	164	.....	.....	12,528	27,187
11,095	3,139 78	.....	.....	1,037	.....	.....	7,283	19,415
3,077	861 56	.....	.....	.....	68	.....	21,254	24,399
36,413½	11,133 36	562	.....	.....	.....	.....	14,369	51,344½
6,122	1,736 28	914	.....	.....	434	.....	2,362	9,832
74,308	21,090 58	1,776	.....	1,675	184	.....	22,012	99,955
84,162	25,070 22	1,482	.....	4,699	680	.....	51,081	142,104
15,723,329$\frac{3}{20}$	4,454,283 52	181,968$\frac{4}{20}$	13,975½	368,613½	27,632	.....	11,730,455$\frac{3}{20}$	28,045,973$\frac{1}{10}$
2,928,491½	833,660 21	78,236¼	5,591	485,079	3,194	161,065	3,087,543	6,749,202$\frac{3}{10}$
13,457,041$\frac{3}{20}$	3,789,595 10	80,066$\frac{7}{20}$	3,543	322,892	5,225¾	570,052	11,087,382$\frac{13}{20}$	25,526,203$\frac{11}{10}$
7,659	2,159 92	.....	.....	.....	.....	.....	10,574	18,233
8,782	2,503 06	110	129	.....	.....	.....	4,713	13,734
3,691	1,033 48	.....	.....	.....	.....	.....	19,853	23,544
20,614	5,914 16	.....	.....	3,454	78	.....	14,074	38,220
2,306	648 48	398	.....	.....	35	.....	680	3,419
83,485	23,588 74	.....	.....	2,653	211	.....	15,078	101,427
59,238	17,654 84	1,957	.....	9,539	91	.....	30,737	101,562
16,671,311$\frac{6}{10}$	4,676,757 99	160,767$\frac{13}{20}$	9,263	823,617	8,834$\frac{7}{8}$	731,117	14,270,634$\frac{13}{20}$	32,575,543$\frac{13}{40}$

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—OTHER MATERIALS.

No. 22.—WAREHOUSE RETURN for the Fiscal Year ended March 31, 1916.

DR. CR.

Remaining in Warehouse from last year.	Warehoused	Totals.	Divisions.	Entered for Consumption.		Remaining in Warehouse.	Totals.
				Quantity.	Duty.		
Lbs.	Lbs.	Lbs.		Lbs.	$ cts.	Lbs.	Lbs.
99,319	2,182,604	2,281,923	Montreal, Que	1,365,175	218,428 00	916,748	2,281,923
99,319	2,182,604	2,281,923	....Totals	1,365,175	218,428 00	916,748	2,281,923

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—OTHER MATERIALS—*Concluded.*

No. 23.—COMPARATIVE Statement of Warehouse Returns for the Fiscal Years ended March 31, 1915 and 1916.

DR. CR.

Remaining in Warehouse from last year.	Warehoused.	Totals.	Provinces.	Entered for Consumption.		Remaining in Warehouse.	Totals.
				Quantity.	Duty.		
Lbs.	Lbs.	Lbs.	1915.	Lbs.	$ cts.	Lbs.	Lbs.
67,444	1,312,464	1,379,908	Quebec.....	1,280,589	204,894 24	99,319	1,379,908
			1916.				
99,319	2,182,604	2,281,923	Quebec	1,365,175	218,428 00	916,748	2,281,923

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

SESSIONAL PAPER No. 12

APPENDIX A.—CANADA TWIST TOBACCO.

No. 24.—STATEMENT of Revenue collected from Canada Twist Tobacco for the Fiscal year ended March 31, 1916.

Divisions.	Licenses.		Canada Twist, at 10 cts. per lb.	Total Duty Collected including License Fees.
	No.	Fees.		
		$	Lbs.	$ cts.
Ottawa, Ont.	4	8	540	62 00
Prescott, "	1	2	880	90 00
Windsor, "	1	2	50	7 00
Totals	6	12	1,470	159 00
Montreal, Que.	19	38	5,960	634 00
Grand Totals	25	50	7,430	793 00

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—CANADA TWIST TOBACCO—*Concluded*

No. 25.—COMPARATIVE STATEMENT for the Fiscal Years ended March 31, 1915 and 1916.

Provinces.	Licenses.		Canada Twist, at 10 cts. per lb.	Total Duty Collected including License Fees
	No.	Fees.		
1915.		$	Lbs.	$ cts.
Ontario.	4	8	630	63 00
Quebec.	21	42	6,305	624 50
Totals	25	50	6,935	687 50
1916				
Ontario.	6	12	1,470	159 00
Quebec.	19	38	5,960	634 00
Totals	25	50	7,430	793 00

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—CIGARS.

No. 26.—RETURN of Manufactures for the Fiscal Year ended March 31, 1916.

Divisions.	Licenses.		Total Raw Leaf Tobacco and other materials actually used.	Deficiencies Paying Duty.	Cigars at $4.00 per thousand.			Cigars at $3.00 per thousand.			Total Duty collected ex-manufactory, including License Fees.
	No.	Fees.		Cigars.	Manufactured.	Paid Duty.	Warehoused.	Manufactured.	Paid Duty.	Warehoused.	
		$ cts.	Lbs.	No.	No.	No.	No.	No.	No.	No.	$ cts.
Belleville, Ont	1	50 00	2,422					128,050	61,600	66,450	234 80
Brantford, "	5	250 00	39,782		1,020	1,020		1,944,560	516,200	1,428,360	1,802 68
Guelph, "	7	350 00	24,620					1,282,850	662,700	620,150	2,338 09
Hamilton, "	10	500 00	301,673	3,120	1,050		1,050	14,036,055	4,698,615	9,337,440	14,605 20
Kingston, "	3	125 00	47,248		2,535	2,535		2,381,650	996,600	1,385,050	3,124 94
London, "	35	1,650 00	596,760	45,522	12,000	12,000		29,772,185	25,226,485	4,545,700	77,514 40
Ottawa, "	1	50 00	3,363					182,725	182,725		598 18
Owen Sound, "	2	100 00	17,402	939				894,525	462,700	431,825	1,490 94
Perth, "	2	100 00	901½					50,550	20,550	30,000	161 66
Peterborough, "	2	100 00	2,452					119,250	119,250		457 75
Port Arthur, "	1	50 00	548	2,659				22,250	22,250		126 24
Prescott, "	2	100 00	7,870					410,350	337,600	72,750	1,112 80
St. Catharines, "	9	425 00	17,622					1,023,450	993,450	30,000	3,405 35
Stratford, "	4	200 00	21,974	100	1,500	1,500		1,136,315	770,240	366,075	2,517 05
Toronto, "	23	1,150 00	310,135¼	64,127				16,173,830	10,316,030	5,857,800	32,290 75
Windsor, "	7	350 00	39,956					1,899,150	1,649,400 *550	249,200	5,298 25
Totals	114	5,550 00	1,434,728¾	116,467	18,105	17,055	1,050	71,457,745	47,036,395 *550	24,420,800	147,079 08
Joliette, Que	7	350 00	80,159¼		15	15		4,995,875	3,635,220	1,360,655	11,255 72
Montreal, "	45	2,150 00	1,790,576	39,515	14,385	14,385		99,048,850	61,605,630	37,443,220	187,143 17
Quebec, "	2	100 00	92,500½					4,729,545	2,690,815	2,038,730	8,172 45
St. Hyacinthe, "	10	475 00	173,149	2,195	69,006	62,706	6,300	10,933,130	6,740,105	4,193,025	20,952 73
Sherbrooke, "	7	351 00	112,738		675	675		6,093,680	3,324,450	2,769,230	10,326 61
Three Rivers, "	4	200 00	9,736		300	300		537,770	427,820	109,950	1,484 66
Totals	75	3,625 00	2,258,858¾	41,710	84,381	78,081	6,300	126,338,850	78,424,040	47,914,810	239,335 34

St. John, N.B.	2	100 00	35,545	.....	.....	.....	.....	2,004,100	163,000	1,841,100	589 00
Halifax, N.S.	3	150 00	13,712	.....	.....	.....	.....	753,570	541,160	212,410	1,773 48
Pictou	1	50 00	3,894	.....	.....	.....	.....	180,900	166,400	14,500	549 20
Totals	4	200 00	17,606	.....	.....	.....	.....	934 470	707,560	226,910	2,322 68
Winnipeg, Manitoba	12	600 00	41,773	20,880	.....	.....	.....	2,058,465	1,642,715	415,750	5,590 83
Moose Jaw, Saskatchewan	4	200 00	3,003	14,009	.....	.....	.....	121,500	121,500	.....	606 53
Calgary, Alberta	8	400 00	77,758	6,692	3,600	3,600	.....	3,768,485	3,751,485	17,000	11,688 92
Vancouver, B.C.	17	850 00	40,606	7,914	2,100	2,100	.....	2,077,005	2,077,005	.....	7,113 17
Victoria	11	525 00	14,754	.....	.....	.....	.....	760,150	760,150	.....	2,805 45
Totals	28	1,375 00	55,360	7,914	2,100	2,100	.....	2,837,155	2,837,155	.....	9,918 62
Grand Totals	247	12,050 00	3,924,632½	207,672	108,186	100,836	7,350	209,520,770	134,683,850 *550	74,836,370	417,131 00

*Destroyed by fire.

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—CIGARS—*Continued.*

No. 27.—Comparative Statement of Manufactures for the Fiscal Years ended March 31, 1915 and 1916.

Provinces.	Licenses.		Total Raw Leaf Tobacco and other materials actually used.	Deficiencies Paying Duty.	Cigars at $4 per thousand.			Cigars at $3 per thousand.			Total Duty collected ex-manufactory including License Fees.
	No.	Fees.		Cigars.	Manufactured.	Paid Duty.	Warehoused.	Manufactured.	Paid Duty.	Warehoused.	
1915.		$ cts.	Lbs.	No.	No.	No.	No.	No.	No.	No.	$ cts.
Ontario	116	5,700 00	1,637,827¾	242,678	183,000	183,000	....	82,127,565	51,154,510	30,973,055	139,798 65
Quebec	71	3,400 00	2,284,847½	955,249	27,105	26,490	615	128,140,505	73,937,335 | *30,000	54,173,170	200,817 60
New Brunswick	3	150 00	55,807					3,062,600	448,400	2,614,200	1,296 05
Nova Scotia	5	250 00	21,769					1,164,155	660,910	503,245	2,004 76
Manitoba	12	600 00	66,664	21,035				3,374,800	2,408,095	966,705	6,860 51
Saskatchewan	7	325 00	6,642	4,940				349,040	349,040		1,217 96
Alberta	12	600 00	71,231					3,374,105	3,374,105		9,233 88
British Columbia	36	1,775 00	81,497	80,724				4,345,000	4,323,900	21,100	13,046 21
Totals	262	12,800 00	4,226,285¾	1,304,626	210,105	209,490	615	225,937,770	136,656,295 | *30,000	89,251,475	374,275 62

1916.												
Ontario	114	5,500 00	1,434,728½	116,467	18,105	17,055	1,050	71,457,745	47,086,395 *550	24,420,800	147,079 08
Quebec	75	3,625 00	2,258,458¾	41,710	84,381	78,081	6,300	126,338,850	78,424,040	47,914,810	239,335 34
New Brunswick	2	100 00	35,545					2,004,100	163,000	1,841,100	589 06
Nova Scotia	4	200 00	17,606					934,470	707,560	226,910	2,322 68
Manitoba	12	600 00	41,773	20,880				2,058,465	1,642,715	415,750	5,590 83
Saskatchewan	4	200 00	3,003	14,009				121,500	121,500		606 53
Alberta	8	400 00	77,758	6,692	3,600	3,600		3,768,485	3,751,485	17,000	11,688 92
British Columbia	28	1,375 00	55,360	7,914	2,100	2,100		2,837,155	2,837,155		9,918 62
Totals	247	12,050 00	3,924,632½	207,672	108,186	100,836	7,350	209,520,770	134,683,850 *550	74,836,370	417,131 00

* Destroyed by fire.

Memo

Total number of cigars manufactured—

1915 226,147,875
1916 209,628,956

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—CIGARS—*Continued.*

DR. **No. 28.—WAREHOUSE RETURN for the Fiscal Year ended March 31, 1916.** CR.

Remaining in Warehouse from last year.	Warehoused.	Received from other Divisions.		Totals.	Divisions.	Entered for Consumption.		Removed to other Divisions.		Army, Navy, and Ship's Stores.	Exported.	Remaining in Warehouse.	Totals.
		Removed during the year.	In Transit last year.			Quantity.	Duty.	Warehoused in Divisions to which Removed.	In Transit.				
No.	No.	No.	No.	No.		No.	$ cts.	No.	No.	No.	No.	No.	No.
57,500	66,450	.....	.....	123,950	Belleville, Ont.	80,000	240 00	.....	.....	1,500	.....	42,450	123,950
1,128,925	1,428,360	.....	.....	2,557,285	Brantford, "	1,296,600	3,888 00	.....	.....	5,000	.....	1,256,285	2,557,285
231,575	620,150	.....	.....	851,725	Guelph, "	671,475	2,014 43	.....	.....	.....	.....	180,250	851,725
2,291,420	9,338,490	1,494,500	.....	13,124,410	Hamilton, "	11,671,160	35,013 51	84,000	6,000	112,125	11,125	1,240,000	13,124,410
335,975	1,385,050	.....	.....	1,721,025	Kingston, "	1,256,000	3,768,00	.....	.....	40,000	.....	425,025	1,721,025
2,196,905	4,545,700	.....	.....	6,742,605	London, "	4,520,560	13,561 70	.....	.....	34,000	.....	2,188,045	6,742,605
157,700	431,825	.....	.....	589,525	Owen Sound, "	477,250	1,431 75	.....	.....	.....	.....	112,275	589,525
52,300	30,000	.....	.....	82,300	Perth, "	10,000	30 00	.....	.....	.....	.....	72,300	82,300
18,950	72,750	.....	.....	91,700	Prescott, "	90,200	270 60	.....	.....	1,500	.....	.....	91,700
65,000	30,000	.....	.....	95,000	St. Catharines, "	80,000	240 00	.....	.....	.....	.....	15,000	95,000
98,875	366,075	.....	.....	464,950	Stratford, "	417,300	1,251 91	.....	.....	.....	.....	47,650	464,950
1,059,225	5,857,800	13,500	.....	6,930,525	Toronto, "	5,646,145	16,938 48	.....	.....	118,950	.....	1,165,430	6,930,525
192,500	249,200	.....	.....	441,700	Windsor, "	182,300	562 10	.....	.....	.....	.....	259,400	441,700
7,886,850	24,421,850	1,508,000	.....	33,816,700	Totals	26,398,390	79,210 48	84,000	6,000	313,075	11,125	7,004,110	33,816,700
679,475	1,360,655	.....	.....	2,040,130	Joliette, Que.	1,142,835	3,428 51	.....	.....	.....	.....	897,295	2,040,130
7,162,945	37,443,220	2,833,300	109,800	47,549,265	Montreal, "	37,717,110	113,151 45	1,559,000	25,000	167,200	.....	8,080,925	47,549,265
246,625	2,038,730	.....	.....	2,285,355	Quebec, "	1,352,305	4,056 91	.....	.....	9,500	.....	923,550	2,285,355
113,125	4,199,325	.....	.....	4,312,450	St. Hyacinthe, "	455,700	1,412 10	2,833,300	126,650	10,000	.....	886,800	4,312,450
1,636,685	2,769,230	.....	.....	4,405,915	Sherbrooke, "	2,503,555	7,510 80	.....	.....	11,250	.....	1,891,110	4,405,915
140,200	109,950	.....	.....	250,150	Three Rivers, "	173,700	521 10	.....	.....	.....	.....	76,450	250,150
9,979,055	47,921,110	2,833,300	109,800	60,843,265	Totals..	43,345,235	130,080 87	4,392,300	151,650	197,950	.....	12,756,130	60,843,265
865,350	1,841,100	.....	.....	2,706,450	St. John, N. B.	1,998,400	5,995 20	.....	.....	4,000	.....	704,050	2,706,450

166,345	212,410			378,755	Halifax, N.S.	244,800	734 40			800		133,155	378,755
	14,500			14,500	Pictou, "	14,500	43 50						14,500
166,345	226,910			393,255	Totals	259,300	777,90			800		133,155	393,255
208,525	415,750	70,000		694,275	Winnipeg, Man.	562,125	1,686 38			60,850		71,300	694,275
	17,000			17,000	Calgary, Alberta	17,000	51 00						17,000
86,100		65,000		151,100	Vancouver, B.C.	75,000	225 00	8,000		44,300		23,800	151,100
		8,000		8,000	Victoria, "					3,400		4,600	8,000
86,100		73,000		159,100	Totals	75,000	225 00	8,000		47,700		28,400	159,100
19,122,225	74,843,720	4,484,300	109,800	98,630,045	Grand Totals	72,655,450	218,026 83	4,484,300	157,650	624,375	11,125	20,697,145	98,630,045

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—CIGARS—*Concluded.*

DR. No. 29.—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1915 and 1916. CR.

Remaining in Warehouse from last year.	Warehoused.	Received from other Divisions.		Totals.	Provinces.	Entered for Consumption.		Removed to other Divisions.		Army, Navy, and Ship's Stores.	Exported.	Remaining in Warehouse.	Totals.
		Removed during the year.	In Transit last year.			Quantity.	Duty.	Warehoused in Divisions to which Removed.	In Transit.				
No.	No.	No.	No.	No.	1915.	No.	$ cts.	No.	No.	No.	No.	No.	No.
10,013,840	30,973,055	2,069,050	.....	43,055,945	Ontario.....	34,257,045	88,456 92	907,050	.....	.....	5,000	7,886,850	43,055,945
17,313,246	54,173,785	2,885,025	117,500	74,489,556	Quebec	60,344,676	152,781 29	4,047,025	109,800	.....	9,000	9,979,055	74,489,556
773,000	2,614,200	.....	.....	3,387,200	New Brunswick....	2,521,850	6,386 03	.....	.....	.....	.....	865,350	3,387,200
134,605	503,245	.....	.....	637,850	Nova Scotia. ...	469,405	1,144 87	.....	.....	.....	2,100	166,345	637,850
344,975	966,705	.....	.....	1,311,680	Manitoba	1,103,155	2,860 44	.....	.....	.....	.....	208,525	1,311,680
65,000	21,100	.....	.....	86,100	British Columbia...	.....	.....	.....	.....	.....	.....	86,100	86,100
28,644,666	89,252,090	4,954,075	117,500	122,968,331	Totals	98,696,131	251,629 55	4,954,075	109,800	.....	16,100	19,192,225	122,968,331
					1916.								
7,886,850	24,421,850	1,508,000	.....	33,816,700	Ontario.	26,398,390	79,210 48	84,000	6,000	313,075	11,125	7,004,110	33,816,700
9,979,055	47,921,110	2,833,300	109,800	60,843,265	Quebec	43,345,235	130,080 87	4,392,300	151,650	197,950	.....	12,756,130	60,843,265
865,350	1,841,100	.....	.....	2,706,450	New Brunswick....	1,998,400	5,995 20	.....	.....	4,000	.....	704,050	2,706,450
166,345	226,910	.....	.....	393,255	Nova Scotia.	259,300	777 90	.....	.....	800	.....	133,155	393,255
208,525	415,750	70,000	.....	694,275	Manitoba...	562,125	1,686 38	.....	.....	60,850	.....	71,360	694,275
.....	17,000	.....	.....	17,000	Alberta.....	17,000	51 00	.....	.....	.....	.....	.....	17,000
86,100	.....	73,000	.....	159,100	British Columbia...	75,000	225 00	8,000	.....	47,700	.....	28,400	159,100
19,192,225	74,843,720	4,484,300	109,800	98,630,045	Totals.....	72,655,450	218,026 83	4,484,300	157,650	624,375	11,125	20,697,145	98,630,045

	1915.	1916.
Total duty collected, ex-manufactory and ex-warehouse.....	$ 613,105 17	$ 623,107 83
License fees	12,800 00	12,050 00
Totals.....	$ 625,905 17	$ 635,157 83

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

SESSIONAL PAPER No. 12

APPENDIX A.—INSPECTION OF PETROLEUM.

No. 30.—RETURN of Inspected Petroleum and Naphtha shipped from Refineries, during the Fiscal Year ended March 31, 1916.

Divisions.	Licenses. No.	Licenses. Fees.	Petroleum.	Naphtha.	Totals.
		$	Gallons.	Gallons	Gallons
London, Ont	3	3	30,773,387 11	21,107,425 88	51,880,812 99
Toronto "	2	2	2,360,506 00	3,463,122 00	5,823,628 00
Totals	5	5	33,133,893 11	24,570,547 88	57,704,440 99
Vancouver, B.C	1	1	1,641,661 70	4,668,296 10	6,309,957 80
Grand Totals	6	6	34,775,554 81	29,238,843 98	64,014,398 79

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—INSPECTION OF PETROLEUM—*Concluded.*

No. 31.—COMPARATIVE Statement of Inspected Petroleum and Naphtha shipped from Refineries during the Fiscal Years ended March 31, 1915 and 1916.

Provinces.	Licenses. No.	Licenses. Fees.	Petroleum.	Naphtha.	Totals.
1915.		$	Gallons.	Gallons	Gallons
Ontario	5	5	30,948,769 08	15,265,380 01	46,214,149 09
British Columbia	1	1	168,636 00		168,636 00
Totals	6	6	31,117,405 08	15,265,380 01	46,382,785 09
1916.					
Ontario	5	5	33,133,893 11	24,570,547 88	57,704,440 99
British Columbia	1	1	1,641,661 70	4,668,296 10	6,309,957 80
Totals	6	6	34,775,554 81	29,238,843 98	64,014,398 79

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—

No. 32.—RETURN of Manufactures for

Divisions.	Licenses.		Materials used.			
	No.	Fees.	Spirits.	Beer, Wine, etc.	Nitric Acid.	Mercury.
		$ cts.	Gallons.	Gallons.	Lbs.	Lbs.
Brantford, Ont.	1	50 00	9,828 04	144 00	*	
Hamilton, "	4	500 00	24,204 09	250 80		
Kingston, "	2	100 00	12,621 84	157 72		
Ottawa, "						
Owen Sound, "	1	50 00	15,926 28	148 80		
Perth, "	4	300 00	31,063 03			
Peterborough "	1	50 00				
Prescott, "	1	300 00	80,675 43		402,342	43,397
Stratford, "	1	50 00				
Toronto, "	17	1,075 00	532,547 90	1,869 00		
Windsor, "	11	550 00	40,418 25	221 52		
Totals	43	3,025 00	747,284 86	2,647 84 144 00	402,342 *	43,397
				255 91	†	
Montreal, Que.	18	1,400 00	148,102 96	385 50		
Quebec, "	1	50 00	14,561 91	386 00		
St. Hyacinthe, "	2	200 00	94,399 23			
Sherbrooke, "	1	300 00	65,999 69		301,275	40,125
Totals	22	1,950 00	323,063 79	255 91 771 50	* 301,275	40,125
St. John, N.B.	2	100 00	11,611 73	50 10 164 61	††	
Winnipeg, Man.	9	450 00	51,200 23	26 90 925 71	†	
Calgary, Alta.	3	125 00	18,930 79	371 30 704 95	††	
Vancouver, B.C.	1	50 00	8,268 52	78 00		
Grand Totals	80	5,700 00	1,160,359 92	144 00 3,945 64 2,051 18	* 703,617 †	83,522

*Malt extract. †Vinegar.

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

MANUFACTURES IN BOND.

the Fiscal Year ended March 31, 1916.

Manufactured.		Paid duty ex-manufactory.		Warehoused.		Total Duty Collected ex-manufactory, including License Fees.
Vinegar.	Crude Fulminate.	Vinegar.	Duty.	Vinegar.	Crude Fulminate.	
Gallons.	Lbs.	Gallons.	$ cts.	Gallons.	Lbs.	$ cts.
57,974 47		57,974 47	2,319 09			2,369 09
160,110 26		62,414 91	2,496 58	97,695 35		2,996 58
84,189 21		5,701 70	228 07	78,487 51		328 07
			890 91			890 91
86,126 65		77,062 21	3,082 53	9,064 44		3,132 33
						300 00
						50 00
	77,847				77,847	300 00
						50 00
885,328 21		117,197 68	4,687 91	768,130 53		5,762 91
224,449 43		134,650 60	5,386 00	89,798 83		5,936 00
1,498,178 23	77,847	455,001 57	19,091 09	1,043,176 66	77,847	22,116 09
237,713 47		191,176 60	7,647 04	46,537 38		9,047 04
90,839 77		67,017 82	2,680 72	23,821 95		2,730 72
						200 00
	46,452				46,452	300 00
328,553 24	46,452	258,193 91	10,327 76	70,359 33	46,452	12,277 76
54,069 26		54,069 26	2,162 78			2,262 78
317,096 39		260,561 87	12,872 91	56,534 52		13,322 91
84,473 92		77,531 30	3,101 22	6,942 62		3,226 22
42,036 58		42,036 58	1,681 45			1,731 45
2,324,407 62	124,299	1,147,394 49	49,237 21	1,177,013 13	124,299	54,937 21

J. U. VINCENT,
Deputy Minister

APPENDIX A.—

No. 33.—Comparative Statement of Manufactures for

Provinces.	Licenses.		Materials used.			
	No.	Fees.	Spirits.	Beer, Wine, etc.	Nitric Acid.	Mercury.
1915.		$ cts.	Gallons.	Gallons.	Lbs.	Lbs.
Ontario	39	2,200 00	250,134 76	122·70 * 2,456·88 272·95 †	161,132	17,485
Quebec	15	975 00	121,311 12	925·00	254,299	33,450
New Brunswick	2	100 00	8,532 51	37·20	.....	.....
Manitoba	10	475 00	67,326 08	779·53 † 4·40	.....	.....
Alberta	3	150 00	13,275 08	409·07 295·90	.....	.....
British Columbia	1	50 00	13,453 76	156·20	.....	.....
Totals	70	3,950 00	474,033 31	122·70 * 1,461·55 3,875·58	415,431	50,935
1916.						
Ontario	43	3,025 00	747,284 86	144·00 * 2,647·84 255·91 †	402,342	43,397
Quebec	22	1,950 00	323,063 79	771·50	301,275	40,125
New Brunswick	2	100 00	11,611 73	164·61 † 50·10	.....	.....
Manitoba	9	450 00	51,200 23	925·71 † 26·90	.....	.....
Alberta	3	125 00	18,930 79	704 95 † 371 30	.....	.....
British Columbia	1	50 00	8,268 52	78 00	.....	.....
Totals	80	5,700 00	1,160,359 92	144 00 * 2,051 18 † 3,945 64	703,617	83,522

* Malt extract. † Vinegar.

Inland Revenue Department,
Ottawa, July 1, 1916.

SESSIONAL PAPER No. 12

MANUFACTURES IN BOND—*Continued.*

the Fiscal Years ended March 31, 1915 and 1916.

Manufactured.		Paid Duty ex-Manufactory.		Warehoused.		Total Duty Collected ex-Manufactory including License fee.
Vinegar.	Crude Fulminate.	Vinegar.	Duty.	Vinegar.	Crude Fulminate.	
Gallons.	Lbs.	Gallons.	$ cts.	Gallons.	Lbs.	$ cts.
1,339,642·79	31,258	442,515·31	17,700 71	897,127 48	31,258	19,900 71
337,196·85	38,481	269,392·45	10,775 69	67,804 40	38,481	11,750 69
36,386 96	.....	33,656·65	1,346 29	2,730 31	....	1,446 29
349,752 20	....	246,591·24	9,863 65	103,160 96	.....	10,338 65
56,380 31	.....	56,380·31	2,255 19	....	....	2,405 19
80,061·61	....	80,061·61	3,202 49	.....	.. ..	3,252 49
2,199,420·72	69,739	1,128,597·57	45,144 02	1,070,823 15	69,739	49,094 02
1,198,178 23	77,847	455,001·57	19,091 09	1,043,176 66	77,847	22,116 09
328,553 24	46,452	258,193 91	10,327 76	70,359 33	46,452	12,277 76
54,069 26	.....	54,069 26	2,162 78	.....	.....	2,262 78
317,096 39	.....	260,561 87	12,872 91	56,534 52	.....	13,322 91
84,473 92	.....	77,531 30	3,101 22	6,942 62	.....	3,226 22
42,036,58	.....	42,036 58	1,681 45	.....	.....	1,781 45
2,324,407 62	124,299	1,147,394 49	49,237 21	1,177,013 13	124,299	54,937 21

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—

DR. No. 34.—WAREHOUSE RETURN for the

Remaining in Warehouse from last year.	Warehoused.		Received from other Divisions.	Totals.		Divisions.
			Vinegar.			
Vinegar.	Vinegar.	Crude Fulminate.	Removed during the year.	Vinegar.	Crude Fulminate.	
Galls.	Galls.	Lbs.	Galls.	Galls.	Lbs.	
.....	.....	.....	10,757·63	10,757·63	.....	Brantford, Ont.
25,527·54	97,695·35	.....	.....	123,222·89	.....	Hamilton "
20,381·74	78,487·51	.....	.....	98,869·25	.....	Kingston, "
523·60	.....	.....	.....	523·60	.....	Ottawa, "
.....	9,064·44	.....	.....	9,064·44	.....	Owen Sound, "
.....	.....	77,847	.....	.....	77,847	Prescott, "
243,465·20	768,130·53	.....	.....	1,011,595·73	.....	Toronto, "
.....	89,798·83	.....	.....	89,798·83	.....	Windsor, "
289,898·08	1,043,176·66	77,847	10,757·63	1,343,832·37	77,847	Totals
48,408·09	46,537·38	.....	.....	94,945·47	.....	Montreal, Que.
14,836·27	23,821·95	.....	.....	38,658·22	.....	Quebec, "
.....	.....	46,452	.....	.....	46,452	Sherbrooke, "
63,244·36	70,359·33	46,452	.....	133,603·69	46,452	Totals
83,507·76	56,534·52	.....	7,495·17	147,537·45	.....	Winnipeg, Man
.....	6,942·62	.....	.....	6,942·62	.....	Calgary, Alta
436,650·20	1,177,013·13	124,299	18,252·80	1,631,916·13	124,299	Grand Totals

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

MANUFACTURES IN BOND—*Continued.*

Fiscal Year ended March 31, 1916. CR.

Entered for Consumption.		Removed to other Divisions. Vinegar.	Vinegar.	Exported.	Remaining in Warehouse.	Totals.	
Vinegar.	Duty.	Warehoused in Divisions to which removed.	Free.	Crude Fulminate.	Vinegar.	Vinegar.	Crude Fulminate.
Galls.	$ cts.	Galls.	Galls.	Lbs.	Galls.	Galls.	Lbs.
10,757·63	430 31	.....	.....	.....	.....	10,757 63	.....
90,574·47	3,622 99	3,702 86	.....	.....	28,945·56	123,222 89	.....
83,825·26	3,353 02	.....	.....	.....	15,043·99	98,869 25	.....
523·60	20 94	.....	.....	.....	.....	523 60	.....
4,392·89	175 72	.....	.....	.....	4,671·55	9,064·44	.....
.....	.....	.....	.....	77,847	.....	.....	77,847
886,374·72	35,455 01	14,549 94	.....	.....	110,671·07	1,011,595 73	.....
5,787·99	231 52	.....	.....	.....	84,010·84	89,798 83	.....
1,082,236·56	43,289 51	18,252·80	.....	77,847	243,343·01	1,343,832 37	77,847
52,852·32	2,114 11	.....	.....	.....	42,093 15	94,945 47	.....
19,754·30	790 18	.....	.....	.....	18,903 92	38,658 22	.....
.....	.....	.....	.....	46,452	.....	.....	46,452
72,606·62	2,904 29	.....	.....	46,452	60,997·07	133,603·69	46,452
116,530·89	4,661 23	.....	3,702·86	.....	27,303 70	147,537·45	.....
500·00	20 00	.....	.....	.....	6,442 62	6,942 62	.....
1,271,874·07	50 875 03	18,252·80	3,702·86	124,299	338,086·40	1,631,916 13	124,299

J. U. VINCENT,
Deputy Minister.

APPENDIX A —

DR. No. 35.—COMPARATIVE STATEMENT of Warehouse Returns

Remaining in Warehouse from last year.	Warehoused.		Received from other Divisions.	Totals.		Provinces.
			Vinegar.			
Vinegar.	Vinegar.	Crude Fulminate.	Removed during the year.	Vinegar.	Crude Fulminate.	
Galls.	Galls.	Lbs.	Galls.	Galls.	Lbs.	1915.
360,975·27	897,127·48	31,258	11,143·39	1,269,246·14	31,258	Ontario
66,531·31	67,804·40	38,481	.....	134,335·71	38,481	Quebec.
23,864·15	2,730·31	.....	.....	26,594·46	.....	New Brunswick
59,699·24	103,160·96	.....	.....	162,860·20	.....	Manitoba
511,069·97	1,070,823·15	69,739	11,143·39	1,593,036·51	69,739	Totals
						1916.
289,898·08	1,043,176·66	77,847	10,757·63	1,343,832·37	77,847	Ontario
63,244·36	70,359·33	46,452	.....	133,603·69	46,452	Quebec.
83,507·76	56,534·52	.....	7,495·17	147,537·45	.....	Manitoba
.....	6,942·62	.....	.....	6,942·62	.....	Alberta
436,650·20	1,177,013·13	124,299	18,252·80	1,631,916·13	124,299	Totals

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 12

MANUFACTURES IN BOND—*Concluded.*

for the Fiscal Years ended March 31, 1915 and 1916. CR.

Entered for Consumption.		Removed to other Divisions. Vinegar.	Vinegar.	Exported.	Remaining in Warehouse.	Totals.	
Vinegar.	Duty.	Warehoused in Divisions to which removed.	Free.	Crude Fulminate.	Vinegar.	Vinegar.	Crude Fulminate.
Galls.	$ cts.	Galls.	Galls.	Lbs.	Galls.	Galls.	Lbs.
968,204·67	38,728·12	11,143·39		31,258	289,898·08	1,269,246·14	31,258
71,091·35	2,843·65			38,481	63,244·36	134,335·71	38,481
26,594·46	1,063·80					26,594·46	
79,352·44	3,174·07				83,507·76	162,860·20	
1,145,242·92	45,809·64	11,143·39		69,739	436,650·20	1,593,036·51	69,739
1,082,236·56	43,289·51	18,252·80		77,847	243,343·01	1,343,832·37	77,847
72,606·62	2,904·29			46,452	60,997·07	133,603·69	46,452
116,530·89	4,661·23		3,702·86		27,303·70	147,537·45	
500·00	20·00				6,442·62	6,942·62	
1,271,874·07	50,875·03	18,252·80	3,702·86	124,299	338,086·40	1,631,916·13	124,299

	1915	1916.
Total duty collected, ex-manufactory and ex-warehouse	$ 90,953·66	$ 100,112·24
License fees	3,950·00	5,700·00
Totals	$ 94,903·66	$ 105,812·24

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—ACETIC ACID.

No. 36.—RETURN of Manufactures for the Fiscal Year ended March 31, 1916.

Divisions.	Licenses.		Manufactured.	Paid Duty ex-Manufactory.		Warehoused.	Total Duty Collected ex-manufactory including License Fees.
	No.	Fees.	Acetic Acid.	Acetic Acid.	Duty.	Acetic Acid.	
		$ cts.	Galls.	Galls.	$ cts.	Galls.	$ cts.
Hamilton, Ont.	1	50 00	306,267 42			306,267 42	50 00
Montreal, Que.	1	50 00	203,753 12	203,753 12	8,150 14		8,200 14
Totals.	2	100 00	510,020 54	203,753 12	8,150 14	306,267 42	8,250 14

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—ACETIC ACID—*Continued.*

No. 37.—COMPARATIVE STATEMENT of Manufactures for the Fiscal Years ended March 31, 1915 and 1916.

Provinces.	Licenses.		Manufactured.	Paid Duty ex-Manufactory.		Warehoused.	Total Duty Collected ex-manufactory including License Fees.
	No.	Fees.	Acetic Acid.	Acetic Acid.	Duty.	Acetic Acid.	
1915.		$ cts.	Galls.	Galls.	$ cts.	Galls.	$ cts.
Ontario.	1	50 00	60,646 48			60,646 48	50 00
Quebec	1	50 00	178,887 43	178,887 43	7,155 48		7,205 48
Totals.	2	100 00	239,533 91	178,887 43	7,155 48	60,646 48	7,255 48
1916.							
Ontario.	1	50 00	306,267 42			306,267 42	50 00
Quebec	1	50 00	203,753 12	203,753 12	8,150 14		8,200 14
Totals.	2	100 00	510,020 54	203,753 12	8,150 14	306,267 42	8,250 14

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

SESSIONAL PAPER No. 12

APPENDIX A.—ACETIC ACID—*Continued.*

No. 38.—WAREHOUSE RETURN for the Fiscal Year ended March 31, 1916.

DR. CR.

Warehoused	Total.	Divisions.	Exported	Total.
Acetic Acid.	Acetic Acid.		Acetic Acid.	Acetic Acid.
Galls.	Galls.		Galls.	Galls.
306,267 42	306,267 42	Hamilton.	306,267 42	306,267 42

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX A.—ACETIC ACID—*Concluded.*

No. 39.—COMPARATIVE STATEMENT of Warehouse Returns for the Fiscal Years ended March 31, 1915 and 1916.

DR. CR.

Warehoused	Totals.	Provinces.	Exported	Totals.
Acetic Acid.	Acetic Acid.		Acetic Acid.	Acetic Acid
Galls.	Galls.	1915.	Galls.	Galls.
60,646 48	60,646 48	Ontario.	60,646 48	60,646 48
		1916.		
306,267 42	306,267 42	Ontario	306,267 42	306,267 42
			1915	1916
			$ cts	$ cts
Total duty collected on ex manufactory			7,155 48	8,150 14
License fees			100 00	100 00
			7,255 48	8,250 14

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

(A)

METHYLATED SPIRITS.

No. 40.—STATEMENT showing the quantity of Raw Materials on hand on April 1, 1915, and March 31, 1916, and brought in during the year ended March 31, 1916.

DR. CR.

Names of Articles.	Stock on hand April 1, 1915.	Brought in during the year.	Total to be Accounted for.	Used in manufacture of Methylated Spirits.	Sold.	Stock on hand March 31, 1916.	Total Accounted for.
	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.
Alcohol.....	6,380·60	161,412 02	167,792·62	161,044·11	8·25	6,740·26	167,792·62
Wood Naphtha.	1,191·15	35,824·32	37,015·47	34,977·11	....	2,038·36	37,015·47

(B)

STATEMENT showing the quantity of Raw Materials used, and Methylated Spirits produced therefrom.

DR. CR.

Alcohol used Statement (A) above.	Wood Naphtha used Statement (A) above.	Gasoline used Statement (A) above.	Total to be Accounted for.	Methylated Spirits produced.	Lost in Manufacture.		Total Accounted for
Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	p. c.	Pr'f galls.
161,044·11	34,977·11	....	....	194,026·45	1,994·77	1·02	196,021·22

(C)

STATEMENT showing the quantity of Methylated Spirits on hand April 1, 1915, and March 31, 1916, quantity manufactured, sold and otherwise accounted for during the year ended March 31, 1916.

DR. CR.

Stock on hand April 1, 1915.	Manufactured as per Statement (B) above.	Brought in during the year.	Total to be Accounted for.	Sold.	Re-used in manufacture.	Stock on hand March 31, 1916.	Total Accounted for.
Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.	Pr'f galls.
8,843·21	194,026·45	....	202,869·66	201,420·22	..... .	1,449 44	202,869·66

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX B.

EXPENDITURES, Etc.

APPENDIX "B."

No. 1.—Details of Excise Expenditures for the Year ending March 31, 1916.

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Belleville.					
McFee, A. C.	Salary as Collector from April 1, 1915 to March 31, 1916	76 05	113 40	7 20	1,978 32	
Cook, W. J.	" Deputy-Collector Class "A" for the year		109 32 / 98 64	3 60	1,763 40	
McArthur, G. H.	" 1st Class Exciseman for the year		90 00	4 32	1,705 68	
Brown, W. J.	" Special Class Exciseman for the year		23 76 / 79 92	4 32	1,491 96	
Wilson, H. R.	" " " "		73 68	2 88	1,398 36	
Sprague, F. W.	" 1st Class Exciseman for the year		63 35	2 88	1,202 44	
Lally, J. E.	" 2nd Class Exciseman "		42 00 / 51 06	2 88	926 52	
Treverton, C. B.	" 3rd Class Exciseman "		46 60	2 88	882 98	
Allen, B. K.	" 3rd Class Exciseman "		93 60 / 38 70	2 88	639 75	
Hardy, W. A. G.	" 3rd Class Exciseman "		86 40 / 34 92	2 88	575 76	
Cole, W. I.	" 3rd Class Exciseman from Jany. 1, '16 to March 31, 1916		7 50	48	142 02	
	Salaries	76 05	1,052 85	37 20	12,707 19	
	Contingencies				3,825 35	
						16,532 54
	Brantford.					
O'Donohue, M. J.	Salary as Collector for the year	39 96		7 20	1,952 76	
Sloan, W.	" Deputy Collector Class "A" for the year		75 00	3 60	1,421 40	
Orr, H. N.	" " " "B" "	52 44		2 88	1,417 18	
Newsome, I.	" 1st Class Exciseman for the year		62 40	2 88	1,184 64	
Schuler, F. C.	" 2nd " " "		62 40	2 88	1,184 64	
Fairley, W.	" 2nd " " "		39 96	2 88	757 08	
	Salaries	92 40	239 76	22 32	7,917 70	
	Contingencies				1,595 36	
						9,513 06

Guelph.

Her, B	Salary as Collector for the year	.....	.....	7 20	2,792 76	
Till, T. M	" Deputy Collector Class "A" for the year	39 96	....	3 60	1,956 36	
Gerald, W. H.	" Special Class Exciseman for the year	43 92	.....	4 32	2,151 72	
Broadfoot, S.	" Accountant for the year	36 00	.....	4 32	1,759 68	
Bowman, A. W.	" 1st Class Exciseman for the year	30 00	.....	2 88	1,467 12	
Egener, A.	" " " "	17 50	.....	2 88	1,479 62	
O'Brien, E. C	" 2nd " " "	24 96	.....	2 88	1,222 08	
Altemann, P. J	" 1st " " "	52 44	.....	2 88	1,444 68	
Howe, A	" 3rd " " "	.....	.....	2 88	985 46	
Coetta, J. J.	" 1st " " "	.....	75 00	2 88	1,422 12	
Hanlon, J. R.	" 1st " " "	11 62	71 14	2 88	1,319 69	
Martin, N.	" 1st " " "	.....	74 72	2 88	1,418 61	
Thomas, F. W.	" 1st " " "	.....	71 14	2 88	1,349 69	
Williams, A	" 3rd " " "	.....	47 50	2 88	899 60	
Fisk, L	" 3rd " " "	.....	38 70	2 88	733 35	
	Salaries	256 40	378 20	51 12	22,432 54	
	Contingencies	.....	.....	.....	1,006 30	
						23,438 84

Hamilton.

Baby, W. A. D	Salary as collector for the year	.....	98 82	14 40	2,195 06	
O'Brien, J	" Deputy collector Class "A" for the year	.....	99 96	7 20	1,892 76	
Dumbrille, R. W	" Accountant for the year	33 00	.....	4 32	1,612 68	
O'Brien, J. F.	" " "	32 43	.....	4 32	1,588 20	
Chamberlain, J. H	" Special Class Exciseman for the year	.....	65 28 79 92	4 32	1,450 44	
Hayhurst, H. T.	" 1st Class Exciseman for the year	.....	75 00	2 88	1,422 12	
Boyd, J. P. S	" " " "	52 44	.....	2 88	1,444 68	
Lawlor, J. J	" " " "	.....	75 00	2 88	1,422 12	
Elliott, W. J	" " " "	.....	29 76 73 68	2 88	1,368 60	
Kirkpatrick, H. J.	" " " "	.....	71 14	2 88	1,349 69	
Ballantine, A	" 2nd " "	.....	32 20 63 35	2 88	1,170 24	
Mitchell, J. L.	" 2nd " "	.....	63 35	2 88	1,202 44	
Hussey, J. O.	" 2nd " "	.....	27 96 60 35	2 88	1,117 48	
Ahrens, W	" 2nd " "	24 96	.....	2 88	1,222 08	
Griffin, P. F.	" 3rd " "	.....	51 06	2 88	968 52	
Henderson, D.	" 3rd " "	.....	53 94 54 06	2 88	915 48	
Bentley, M. C	" 2nd " "	.....	49 92	2 88	947 16	
Smith, J. F.	" Deputy Collector Class "B" for the year	.....	49 92	2 88	947 16	
Blackman, C.	" Messenger for the year	.....	39 96	2 88	757 08	
	Salaries	142 83	1,210 73	74 88	24,993 99	
	Contingencies	.....	.....	.....	1,154 09	
						26,148 08

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ending March 31, 1916—*Continued.*

To whom paid.	Service.	Deduction for			Amounts paid.	Total amounts paid.
		Superannuation.	Retirement.	Guarantee.		
	Kingston.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Grimason, T.	Salary as Collector for the year	39 96		7 20	1,952 76	
Hanley, A.	" Deputy Collector Class "A" for the year	8 61	62 40	3 60	1,414 29	
Montgomery, W. H.	" 2nd Class Exciseman for the year			2 88	1,184 64	
O'Donnell, J.	" Messenger	18 42		2 88	977 16	
Fahey, E.	" 3rd Class Exciseman for the year			2 88	997 08	
Hogan, J.	" " " "		49 92	2 88	947 16	
Frizell, W.	" " " "		38 70	2 88	733 35	
	Salaries	66 99	151 02	25 20	8,206 44	
	Contingencies				104 43	
						8,310 87
	London.					
Davis, T. G.	Salary as Collector for the year		77 52	7 20	2,292 72	
Thrasher, W. A.	" Deputy Collector Class "A" for the year		99 96	3 60	1,818 84	
Webbe, C. E. A.	" 1st Class Exciseman for the year	31 92		3 60	1,564 44	
Coles, F. H.	" Accountant from March 31 April 15 to May 1, 1915. Died 24 May			0 36	149 64	
Lee, E.	" 1st Class Exciseman from April 1, 15 to July 1, 1915: superannuated July 1	7 50		0 72	366 78	
Foster, H.	" 1st " " for the year	52 44		2 88	1,444 68	
Whitehead, J. P.	" Deputy Collector Class "B" for the year		47 50	2 88	899 61	
Pleasance, W.	" 2nd Class Exciseman for the year		51 06	2 88	968 52	
Robinson, J. T.	" 2nd " from April 1, to Nov. 15: Accountant Nov. 1, 15.		46 67	3 00	883 66	
Talbot, J.	" 3rd Class Exciseman for the year		49 92	2 88	947 16	
Farnworth, F. H.	" 3rd " "		49 15	2 88	930 89	
Hicks, W. H.	" Deputy Collector Class "B" for the year	27 96		2 88	1,369 08	
Cousins, T.	" " " "		60 00	2 88	1,137 12	
Fiddes, J.	" " " "		39 96	2 88	757 08	
Luton, A. A.	" " " "		56 66	2 88	1,073 78	
Tytler, J. M.	" Stenographer and Typewriter for the year		34 92		665 04	
Pringel, H. H.	" 3rd Class Exciseman from 1 Oct. 15 to March 31, 1916		32 46	1 92	615 60	
Granger, F. V.	" 3rd " from Jan. 1, 16 to March 31, 1916		24 16	1 44	457 73	
Dean, J. C.	" 3rd " from March 1, 16 to March 31, 1916		17 91	1 44	338 98	

Thomas, W. R.	3rd	from Jan. 1, 16 to March 31, 1916	7 50	0 48	142 02	
Lindsay, W. A. C.	3rd	" " "	7 50	0 48	142 02	
	Salaries		119 82	702 85	50 52	18,965 39
	Contingencies					4,271 91
						23,237 30
	Ottawa.					
Freeland, A.	Salary as Collector from March 31, 1915 to Dec 1, 15: Died 3 Nov. 15			66 64	4 80	1,261 84
McGuire, T.	Deputy Collector Class "A" for the year			75 00	3 60	1,421 84
Fox, T.	1st Class Exciseman from March 31, 1915 to Feb. 29, 16: superannuated				2 64	1,372 36
Bennett, J.	Deputy Collector Class "B" for the year			64 92	2 88	1,232 16
Laporte, G.	" " "		24 00		2 88	1,173 12
Newman, J. M.	3rd Class Exciseman for the year			49 92	2 88	947 16
Chisholm, J. A.	3rd " "			46 24	2 88	875 87
Ladouceur, F.	Deputy Collector Class "B" for the year			15 00	2 88	282 12
Fiedler, F. W.	3rd Class Exciseman from June 1, 1915 to March 31, 1916			50 00	2 10	947 60
	Salaries		24 00	367 72	27 84	9,513 63
	Contingencies					7,757 64
						17,271 27
	Owen Sound.					
Graham, W. J.	Salary as Collector for the year				3 60	1,796 40
Johnson, J. J.	1st Class Exciseman for the year		30 00		2 88	1,467 12
Chisholm, W. N.	Deputy Collector Class "A" for the year		25 92		3 60	1,270 44
Blyth, A.	1st Class Exciseman for the year			75 00	2 88	1,422 12
Cryderman, C. W.	Deputy Collector Class "B" for the year			45 00	2 88	852 12
	Salaries		55 92	120 00	15 84	6,808 20
	Contingencies					808 33
						7,616 53
	Perth.					
Stone, C. F.	Salary as Collector for the year			33 00 86 22	7 20	1,598 51
Stinson, H. T.	Deputy Collector Collector Class "A" for the year			63 36 75 00	3 60	1,358 04
Snowdon, J. W.	Special Class Exciseman for the year			105 00	4 32	1,990 68
Armstrong, T. E.	3rd " "			49 92	2 88	947 16
Miller, H. M.	3rd " "			48 69	2 88	923 40
Meighen, H. S.	3rd " "			38 70	2 88	733 35
MacMartin, A. G.	3rd " "			38 70	2 88	733 35
Clarke, T.	Deputy Collector Class "B" for the year			45 00	2 88	852 12
Burrus, W. E.	" " " "			30 00	2 88	567 12
Dacey, D.	" " " "			39 96	3 60	756 36
Grange, J.	" " " "			24 96	2 88	472 08
Munroe, K.	" " " "			24 96	2 88	472 08

APPENDIX B.—No. 1.—Details of Excise Expenditures for the year ending March 31, 1916—*Continued.*

To whom paid.	Service.	Deduction for			Amounts paid.	Total amounts paid.
		Superannuation.	Retirement.	Guarantee.		
	Perth—Con.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
McNaughton, J. C.	Salary as 3rd Class Exciseman from July 1, 15 to March 31, 1916: transf. from Peterborough.		48 69	2 16	924 12	
	Salaries		752 16	43 12	12,328 37	
	Contingencies				3,394 32	15,722 69
	Peterborough.					
McNaughton, J. C	Salary as Collector from April 1, to July 1, 1915; transferred to Perth		16 23	0 90	307 86	
Bickle, J. W.	" Deputy Collector Class "B" for the year	18 96		2 88	928 08	
Buller, W. H.	" Collector from July 1, 1915, to March 1, 1916		61 38	3 60	1,164 14	
Parker W. R.	" Deputy Collector Class "B" for the year		39 96	3 60	756 36	
	Salaries	18 96	117 57	10 98	3,156 44	
	Contingencies				599 84	3,756 28
	Port Arthur.					
Bridgman, M. W.	Salary as Collector for the year		90 00	3 60	1,706 40	
Smith, B. H	" 2nd Class Exciseman for the year		59 44	2 88	1,127 66	
Barnes, G.	" Deputy Collector Class "B" for the year		32 40	2 88	614 64	
Wink, J. C.	" 3rd Class Exciseman "		49 92	2 88	947 16	
	Salaries		231 76	12 24	4,395 86	
	Contingencies				1,057 64	5,453 50
	Prescott.					
Melville, T. R	Salary as Collector for the year		129 96	7 20	2,462 76	
White, J. B.	" Deputy Collector Class "A" for the year		171 00 98 64	3 60	1,701 72	
Murray, D.	" Special Class Exciseman "	36 00	140 40 89 23	4 32	1,759 68	
McPherson, E. A.	" 1st Class " "		78 78	2 88	1,190 13	
Granton C.	" 3rd " " "		51 18	2 88	970 89	
McNally, E.	" " " "		84 24 47 49	2 88	815 37	

Byrne, W. P.	"	" " "		49 92	2 88	947 16	
Wood, J. A.	"	Deputy Collector Class "B" "			2 88	997 08	
Dunkin, W. H.	"	" "B" "		39 96	3 60	756 36	
Wood, C. E.	"	3rd Class Exciseman from July 1, 1915, to March 31, 1916		23 74	1 92	449 33	
		Salaries	36 00	1,000 39	35 04	12,050 48	
		Contingencies				1,984 52	14,035 00
		Stratford.					
Rennie, G.	Salary as	Collector for the year		75 00	7 20	1,992 72	
Tobin, T. S.	"	Deputy Collector Class "A" for the year		229 64 75 00	3 60	1,196 76	
Jeffrey, A. J.	"	Accountant for the year		101 52 64 92	4 32	1,129 20	
Dalton, M. J.	"	Deputy Collector Class "B" for the year		49 92	3 60	946 44	
Billings, W.	"	" " "		9 12	3 60	170 54	
Bamford, V. C. F.	"	" " from November 1, 1915, to March 31, 1916		20 81	1 20	394 64	
		Salaries		545 93	23 52	5,830 30	
		Contingencies				890 84	6,721 14
		St. Catharines.					
Hewson, C. A.	Salary as	Collector for the year	31 92		3 60	1,564 44	
Johnston, H. J.	"	Deputy Collector Class "A" for the year		54 96	2 88	1,042 08	
Miller, E.	"	2nd Class Exciseman "			2 88	1,247 04	
Schram, R. L. H.	"	" " "	43 68		2 88	1,203 36	
Simpson, W. A.	"	1st Class "		75 00	2 88	1,422 12	
		Salaries	75 60	129 96	15 12	6,479 04	
		Contingencies				312 72	6,791 76
		Toronto.					
Freckland, H. R.	Salary as	Collector for the year		113 04 139 92	14 40	2,532 60	
MacKenzie, J. H.	"	Special Class Exciseman for the year		99 96	3 60	1,896 36	
Brewer, J. B.	"	Accountant for the year	21 00		4 32	1,774 68	
Hinchey, Hugh	"	Deputy Collector Class A for the year		75 00	7 20	1,417 80	
Gerald, Chas.	"	Special Class Exciseman "			4 32	2,195 64	
Jamieson, R. C.	"	" " "	39 96		4 32	1,955 64	
Graham, W. T.	"	" " "	31 92		4 32	1,563 72	
Doyle, E. J.	"	" " "	31 92		4 32	1,563 72	
Hume, L. B.	"	" " "	31 92		4 32	1,563 72	
Graham, A. L.	"	" " "		79 92	4 32	1,515 72	
Dunn, R. J.	"	" " "		79 92	4 32	1,515 72	
Cuckow, A.	"	Accountant	52 44		2 88	1,411 68	
Digger, H. J.	"	Deputy Collector Class B		49 92	2 88	947 16	
Hollwell, H. N.	"	1st Class Exciseman	30 60		2 88	1,467 12	

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ending March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Toronto—Con.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Falconer, R. H.	Salary as 1st Class Exciseman for the year		75 00	2 88	1,422 12	
Gillies, A. L	" " " "		76 44 75 00	2 88	1,344 68	
Young, R. E.	" " " "		74 16 75 00	2 88	1,347 96	
Walsh, W. H.	" " " "		75 00	2 88	1,422 12	
Spence, F. H.	" " " "	30 00		2 88	1,467 12	
Dunbar, G. E.	" " " "		69 96	2 88	1,327 08	
Oliver, J. T.	" " " "		49 92 63 35	2 88	1,152 52	
Abbott, H. F.	" " " "		59 62	2 88	1,131 17	
Barber, J. S.	" 2nd Class " "	14 56		2 88	1,232 48	
Sykes, W. J.	" " " "		62 40	2 88	1,184 64	
Young, J. J.	" 1st Class " "		19 92 61 33	2 88	1,143 29	
Johnstone, E. J. A.	" " " "		63 35	2 88	1,202 44	
Shorey, A. B.	" 2nd Class " "		51 06	2 88	968 52	
MacKay, J. C	" " "		39 84 47 32	2 88	857 42	
Jones, A.	" 3rd Class "	19 92		2 88	977 16	
Eakins, G. G.	" " "		49 92	2 88	947 16	
Mather, A. P.	" " "		40 92	2 88	947 16	
Shanacy, M.	" Deputy Collector Class B	21 96		2 88	1,075 08	
Elliott, T. H.	" " " "		14 16 69 96	2 88	1,312 92	
Hall, W. H.	" " " "		60 00	2 88	1,137 12	
Fielding, L. G	" Stenographer and Typewriter		34 92		665 04	
Sloan, J. B.	" Messenger for the year		39 96	2 88	757 08	
Kinnear, W. J.	" 3rd Class Exciseman from April 1, 1915, to March 31, 1916		5 40 32 46	1 92	610 20	
Songhurst, J. R	" " " " Jan. 1, " " "		7 50	48	142 02	
	Salaries	325 60	2,041 55	131 28	49,128 78	
	Contingencies				5,953 18	55,081 96

Windsor.

McSween, Jas	Salary as Collector for the year				14 40	2,785 56	
Bouteiller, G. A	" Special Class Exciseman for the year	25 62			4 32	2,170 02	
Marion, H. R	" Deputy Collector Class "A" for the year		99 96		7 20	1,892 76	
Dunlop, C	" " " "B" "				3 60	1,496 40	
Brennan, J	" Special Class Exciseman "	31 92			4 32	1,563 72	
Bellepeche, A. J. E	" Accountant "		90 00		4 32	1,705 68	
Keogh, P. M	" Deputy Collector Class "B" "	14 00			3 60	1,182 40	
Thomas, R	" 1st Class Exciseman "	30 00			2 88	1,467 12	
Bayard, G. A	" 1st " "	30 00			2 88	1,467 12	
Berry, H. L	" 1st " "		74 16 75 00		2 88	1,347 96	
Falconer, J	" 3rd " "				2 88	999 08	
Cahill, J. W	" 3rd " "	19 92			2 88	977 16	
Neil, J	" 1st " "		75 00		2 88	1,422 12	
Bastedo, S	" Deputy Collector Class "A" "		79 92		7 20	1,512 84	
Lyons, E	" 1st Class Exciseman "	30 00			2 88	1,467 12	
Adam, A. R	" 3rd " "		84 96 49 92		2 88	862 20	
Love, G. G	" 1st " "		63 35		2 88	1,202 44	
Benjamin, R. J	" 3rd " "		49 92 49 92		2 88	897 24	
Lane, T. M	" Special Class Exciseman "	31 92			4 32	1,563 72	
Cumberland, F. D	" 3rd " "		56 16 49 92		2 88	891 00	
Manderson, E. R	" 2nd " "		51 06		2 88	968 52	
Niven, T. D	" 3rd " "		42 92		2 88	947 16	
Beaubien, T. M	" 3rd " "		49 92		2 88	947 16	
Fry, J	" 3rd " "		44 11		2 88	828 36	
O'Neil, G	" 2nd " "		46 75		2 88	873 50	
Leggatt, A. E	" Stenographer and Typewriter "		33 03			629 39	
	Salaries	213 38	1,171 98		99 36	34,065 75	
	Contingencies					2,524 87	
							36,590 62

Joliette.

Malenfant, C. P	Salary as Collector for the year	42 49			5 40	2,077 10	
Gauthier, G. N	" Deputy Collector Class "A" for the year		35 04 84 96		3 60	1,576 32	
Normandin, J. G. H	" 1st Class Exciseman for the year		80 40 82 44		4 32	1,482 78	
Olivier, L. H	" 3rd " "		53 76 49 92		2 88	893 40	
Garneau, L. N	" 2nd " "		62 40		2 88	1,184 64	
Olivier, J. A	" 3rd " "		43 74		2 88	828 36	
Lacoste, J. E	" 3rd " "		41 21		2 88	780 84	
Richard, J. B. T	" Deputy Collector Class "B" for the year		19 92		3 60	376 44	

APPENDIX B.—No. 1.—Details of Excise Expenditure for the year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Joliette—Con.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts
Langevin, J. H. H.	Salary as 3rd Class Exciseman from August 1, 1915, to March 31, 1916	.....	23 74	1 92	449 33	
	Salaries	42 49	577 53	30 36	9,649 21	
	Contingencies	.....	.....	.....	5,436 52	
						15,085 73
	Montreal.					
Fox, J. D.	Salary as Collector for the year	42 49	.....	14 40	2,068 10	
Hudon, M. L. E.	" Deputy Collector Class "A" for the year	69 96	.....	7 20	1,922 76	
Longtin, H.	" Accountant for the year	.....	75 93	4 32	1,438 50	
Forest, E. R.	" " " "	30 00	.....	7 20	1,462 80	
Walsh, D. J.	" Special class Exciseman for the year	43 92	.....	4 32	2,151 72	
Kearney, D. J.	" " " "	.....	79 92	4 32	1,515 72	
Scullion, W. J.	" 1st Class " "	30 00	.....	2 88	1,467 12	
Desaulniers, J. E. A.	" 1st " " "	.....	75 00	2 88	1,422 12	
Bousquet, J. O.	" 1st " " "	.....	56 48 75 00	2 88	1,365 64	
Harwood, J. O. A.	" 1st " " "	.....	42 48 73 68	2 88	1,355 88	
McGuire, L. J.	" 1st " " "	.....	73 82	2 88	1,400 80	
David, T.	" 1st " " "	.....	75 00	2 88	1,422 12	
Milot, J. F.	" 1st " " "	.....	73 68	2 88	1,398 36	
Lamoureux, J. A.	" 1st " " "	.....	63 35	2 88	1,202 44	
Lespérance, J. A.	" 1st " " "	.....	63 35	2 88	1,202 44	
Dumouchel, L.	" 2nd " " "	24 96	.....	2 88	1,222 08	
Dixon, H. G. S.	" 2nd Class Exciseman from April 1 to July 2, 1915; died 1st July, 1915	8 32	.....	96	407 36	
Andrews, A. A.	" 2nd Class Exciseman for the year	43 68	.....	2 88	1,203 36	
Laurier, J. L.	" 2nd " " "	.....	83 52 62 40	2 88	1,101 12	
Brabant, J. B. G.	" 2nd " " "	24 96	.....	2 88	1,222 08	
Comte, L. A. A. J.	" 2nd " " "	43 56	.....	2 88	1,200 96	
Lambert, J. A.	" 3rd " " "	.....	62 40	2 88	1,184 64	
Millier, E.	" 3rd " " "	19 92	.....	2 88	977 16	
Panneton, G. E.	" 3rd " " "	19 92	.....	2 88	977 16	
Costigan, J. J.	" 3rd " " "	19 92	.....	2 88	977 16	

Belair, A. P	"	3rd " " "	19 92		2 88	977 16	
Darelur, J. P.	"	3rd " " from April 15 to September 15, died		24 96	1 44	473 58	
Maranda, N. A	"	3rd " " from April 1, to May 1, 1915, died		4 96	24	78 93	
Marin, L. H.	"	3rd " " for the year		49 92	2 88	947 16	
Cremer, J. H	"	3rd " " "		49 92	2 88	947 16	
Thurber, G.	"	3rd " " "		49 92	2 88	947 16	
Graveline, D. P	"	3rd " " "		49 92	2 88	947 16	
Gervais, J. A	"	3rd " " "		33 12 49 92	2 88	914 04	
Robillard, G. A	"	3rd " " "		49 92	2 88	947 16	
Mantha, J. A	"	3rd " " "		45 60	2 88	852 12	
Boucher, A	"	3rd " " "		45 00	2 88	852 12	
Joubert, P. E. C	"	3rd " " "		47 46	2 88	899 64	
Provost, J. O	"	3rd " " "		41 21	2 88	780 84	
Provost, Jos.	"	3rd " " "		41 21	2 88	780 84	
Roux, G	"	3rd " " "		39 96	2 88	757 08	
Beaudoin, R	"	3rd " " "		42 48 41 21	2 88	738 36	
Bellerose, L. C	"	3rd " " "		38 70	2 88	733 35	
Chagnon, C. P	"	Deputy Collector Class "B" for the year		60 00	7 20	1,132 80	
Lefebvre, A	"	" " "		59 15	3 60	1,120 58	
Patterson, C. E. A	"	" " "		47 40	3 60	898 92	
St. Michel, F. X.	"	" " "		24 96	3 60	471 36	
Beaupré, A	"	Stenographer and Typewriter "		30 62		581 87	
O'Donnell, M. J	"	Messenger "		39 96	2 88	757 08	
Renaud, A. H	"	Deputy Collector Class "B" "	60 54		7 20	1,663 47	
Benoît, L. V	"	" " from September 1, 1915, to March 31, 1916		34 16 53 86	3 60	987 77	
		Salaries	502 07	2,130 11	169 46	54,457 31	
		Contingencies				27,273 46	81,730 77
		Quebec.					
Arnaud, D	Salary as Collector for the year			139 92	7 20	2,652 84	
Tremblay, R	"	Deputy Collector Class "A" for the year		88 42	5 40	1,674 89	
Lamothe, J	"	" " "	30 37		5 40	1,482 98	
Bergeron, R. L	"	Accountant for the year		45 45 69 59	4 32	1,274 35	
Coleman, J. J	"	1st Class Excisеman for the year	30 00		2 88	1,467 12	
Mercier, C. A	"	Unclassified		49 92	2 88	947 16	
Poitras, W	"	1st Class Excisеman for the year		63 35	2 88	1,202 44	
Pelletier, J. B	"	2nd " "		51 12	2 88	970 90	
Hamelin, J. B	"	3rd " "	34 92		2 88	962 16	
Martineau, O. E. A	"	1st " "		36 24 63 35	2 88	1,166 20	
Laflam, A	"	Deputy Collector Class "B" for the year	50 76		3 60	1,395 60	
Rochon, O. E	"	1st Class Excisеman for the year		60 00	2 88	1,137 12	
Gelly, A	"	Deputy Collector Class "B" for the year		49 92	3 60	946 44	
Fournier, J. B. E	"	" " "		49 92	4 32	945 72	

APPENDIX B.—No. 1.—Details of Excise Expenditures for the year ending March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for.			Amounts paid.	Total Amounts paid.
		Superannuation.	Retirement.	Guarantee.		
	Quebec.—Con.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Hardy, Léon	Salary as 3rd Class Exciseman from Nov. 15 to March 31, 1916		25 00	0 96	474 04	
	Salaries	146 05	792 26	54 96	18,699 96	
	Contingencies				14,092 16	
						32,792 12
	Sherbrooke.					
Simpson, A. F	Salary as Collector for the year	45 96		7 20	2,246 76	
Chartier, E	" Deputy Collector Class "A" for the year		84 96	3 60	1,611 36	
Quinn, J. D	" Special Class Exciseman for the year	31 92		4 32	1,563 72	
de Grosbois, C. B	" 2nd Class Exciseman for the year		62 40	2 88	1,184 64	
Bowen, F. C	" 3rd " " "		49 92	2 88	947 16	
Rousseau, E. H	" Deputy Collector Class "B"		54 96	3 60	1,041 36	
	Salaries	77 88	252 24	24 48	8,595 00	
	Contingencies				1,779 94	
						10,374 94
	St. Hyacinthe.					
Benoit, L. V	Salary as Collector from March 31, to Sept. 15, 1915: transf. to Montreal Dep. Col.		24 40 46 09	3 32	848 37	
MacDonald, A. B	" Special Class Exciseman for the year	42 00		4 32	2,053 68	
Langelier, Franç	" Deputy Collector Class "A" for the year		75 00	3 60	1,421 40	
Archambault, F. X	" " 9 "B" "		45 00	2 88	852 12	
Dumaine, J. D	" 1st Class Exciseman from April 1, to July, 1915		13 62 18 75	0 72	341 91	
Rouleau, J. C	" " " for the year		82 08 75 00	2 88	1,340 04	
Gauvin, E	" " " "		73 92	2 88	1,403 16	
Francœur, A	" Deputy Collector Class "B" for the year		49 92	2 88	947 16	
Cartier, A. P	" Deputy Collector Class "B" from April 1 to Sept. 17, 1915: Collector to March 31, 1916		78 04	5 54	1,477 99	
De Billy, F. X	" Deputy Collector Class "B" for the year		39 96	2 88	757 68	
	Salaries	42 00	621 78	31 90	11,442 91	
	Contingencies				7,245 75	
						18,688 66

	Three Rivers.					
Duplessis, C. Z.	Salary as Collector for the year	31 92		3 60	1,564 44	
	Salary	31 92		3 60	1,564 44	
	Contingencies				3,213 59	
						4,778 03
	St. John.					
Belyea, T. H	Salary as Collector for the year	39 96		7 20	1,952 76	
Law, A. L.	" Deputy Collector Class "A" for the year		66 51	3 60	1,261 14	
Fitzpatrick, W. J.	" 1st Class Exciseman for the year	30 00		2 88	1,467 12	
Goddart, O. A.	" Special Class Exciseman for the year	31 92		4 32	1,563 72	
Ferguson, J. C.	" 1st Class " "	30 00		2 88	1,467 12	
McGowan, J.	" " " "		74 72	2 88	1,418 62	
Dwyer, D. T.	" Deputy Collector Class "B" for the year		9 96	3 60	186 36	
Casey, F. J.	" 2nd Class Exciseman for the year		62 40	2 88	1,184 64	
Farmer, R. C.	" " " "		62 40	2 88	1,184 64	
Ward, C., Miss	" Stenographer and Typewriter for the year		33 03		629 40	
Murphy, J. W.	" 3rd Class Exciseman for the year		36 18	2 88	685 89	
	Salaries	131 88	345 20	36 00	13,001 41	
	Contingencies				630 23	
						$13,631 64
	Halifax.					
Grant, H. H.	Salary as Collector from April 1, to June 15, 1915. Superannuated	9 44		1 48	461 84	
King, R. M.	" Deputy Collector Class "A" for the year			3 60	1,696 32	
James, T. C.	" Accountant from April 1, to June 15, 1915. Collector from June 15 to March 31, 1916	36 29		6 60	1,774 85	
Fletcher, C. W.	" 1st Class Exciseman for the year	30 00		2 88	1,467 12	
Holdsley, H. H.	" " " "	30 00		2 88	1,467 12	
Gorman, A. M.	" " " "	30 00		2 88	1,467 12	
Tompkins, F.	" Deputy Collector Class "B" for the year			3 60	1,196 40	
Mason, H. D.	" 3rd Class Exciseman for the year	19 92		2 88	977 16	
Waddell, S. J.	" Deputy Collector Class "B"		22 44	3 60	423 96	
Weatherhead, C. W.	" Accountant from Aug. 16, 1915, to March 31, 1916		24 44	2 71	651 77	
	Salaries	155 65	56 88	33 11	11,583 66	
	Contingencies				1,438 96	
						$13,022 62
	Pictou.					
Fraser, F.	Salary as Collector for the year	27 96		3 60	1,368 36	
Carroll, F. J.	" 2nd Class Exciseman for the year		49 92	2 88	947 16	
MacKeen, E. T.	" Deputy Collector Class "B" for the year		45 00	2 88	852 12	
	Salaries	27 96	94 92	9 36	3,167 64	
	Contingencies				523 58	
						$3,691 22

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ending March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for			Amounts paid.	Total amounts paid.
		Superannuation.	Retirement.	Guarantee.		
	Charlottetown.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Weeks, W. A.	Salary as Deputy Collector Class "A" for the year		51 56	2 88	977 47	
Doyle, S. F.	" 3rd Class Exciseman for the year		44 99	2 88	852 13	
	Salaries		96 55	5 76	1,829 60	
	Contingencies				121 45	
						$1,951 05
	Winnipeg.					
Gosnell, T. S.	Salary as Collector for the year			7 20	2,792 76	
Verner, T. H.	" Deputy Collector Class "B" for the year	61 23	77 52	4 32	1,606 92	
Long, W. H. A.	" Accountant for the year		90 00	4 32	1,705 68	
Lariviere, A. C.	" " "	62 99		4 20	1,732 81	
Hammond, T. W.	" 1st Class Exciseman for the year		63 35	2 88	1,202 44	
Forsyth, D.	" " " "		67 18	2 88	1,273 61	
Currie, W. W.	" " " "		59 62	2 88	1,131 17	
Greig, W. G.	" " " "		102 60 59 62	2 88	1,028 57	
Fegan, P. J.	" 2nd Class Exciseman for the year		46 60	2 88	882 98	
Morris, T. H.	" 3rd Class " "		49 92	2 88	947 16	
Nicholl, F. A.	" " " "		49 92	2 88	947 16	
Ivey, W. J.	" " " "		49 92	2 88	947 16	
Earl, R. W.	" Deputy Collector Class "B" for the year		75 00	2 88	1,422 12	
Sparling, J. W.	" " " " "		54 96	2 88	1,042 08	
Barrett, J. P.	" " " " "		52 44	3 60	993 96	
McNiven, J. D.	" " " " "		19 92	2 88	377 16	
	Salaries	124 22	918 57	55 32	20,033 74	
	Contingencies				5,208 24	
						$25,241 98
	Calgary.					
Fletcher, R. W.	Salary as Collector for the year		98 70	3 60	1,872 63	
Richardson, W.	" Deputy Collector Class "B" for the year		65 04	2 88	1,232 04	
Wood, C. T.	" " " " "		60 00	3 60	1,136 40	

Fidler, H.	3rd Class Excise man for the year		40 96 / 49 92	2 88	906 20	
Markley, A. W. R.	Deputy Collector Class "B" for the year		49 92	3 60	946 44	
Barnard, A. H.	" " "		15 00	2 88	282 12	
	Salaries		379 54	19 44	6,375 83	
	Contingencies				11,694 35	
						18,070 18
	Moose Jaw.					
Conklin, W. M.	Salary as Collector for the year		90 00	3 60	1,706 40	
Dunbar, D. A.	Deputy Collector Class "B" for the year		51 24	3 60	970 08	
Campbell, T. N.	" " " " "		39 96	2 88	757 08	
Scott, J. O.	" " " " "		49 52	3 60	946 44	
Anderson, J. H.	" " " " "		39 96	3 60	756 36	
Hall, Leonard H.	3rd Class Excise man from Sept. 1, 1915 to March 31, 1916		17 91	0 96	339 46	
	Salaries		288 99	18 24	5,475 82	
	Contingencies				3,171 70	
						8,647 52
	Vancouver.					
Fuhlbruck, E. B.	Salary as Collector for the year		124 93	7 20	2,367 83	
Allen, C. A.	Special Class Excise man for the year	43 92		4 32	2,151 72	
Thorburn, J.	Deputy Collector Class "A" "		56 16 / 84 59	5 40	1,547 56	
Sinclair, T. J.	" " " "B" "		64 92	3 60	1,234 44	
Williamson, Wm.	" " " "B" "		54 96	3 60	1,041 36	
McCutcheon, H.	" " " "B" "		34 92	3 60	661 44	
Howell, T.	" " " "B" "		27 48	3 60	518 80	
Dooley, F.	Assessment for the year		75 96 / 75 59	4 32	1,357 84	
Gray, R. S.	Deputy Collector Class "B" for the year		49 92	2 88	947 16	
Morgan, E. J.	1st Class Excise man for the year		45 84 / 62 16	2 88	1,134 04	
MacDonald, C.	" " " "		44 64 / 59 62	2 88	1,086 53	
Simpson, G.	" " " "		51 36 / 63 35	2 88	1,151 07	
Sutherland, W.	" " " "		16 64 / 59 62	2 88	1,114 53	
Handley, S. E.	Deputy Collector Class "B" for the year		12 48	3 60	233 88	
Chilvers, F. W.	1st Class Excise man for the year		18 72 / 75 00	2 88	1,403 40	
Griggs, R. W.	Deputy Collector Class "B" for the year		49 92	3 60	946 44	
Griffin, E. R.	" " " "		12 48	1 80	235 68	
Campbell, A. E.	" " " "		9 96	3 60	186 36	
Dixon, A. H.	" " " from April 1, 1915 to Jan. 1, 1916		22 50	2 70	424 80	
Cowie, E. C.	" " " for the year		60 00	3 60	1,136 40	
McLachlan, F.	" " " "		39 96	2 88	757 08	

APPENDIX B.—No. 1.—Details of Excise Expenditures for the year ending March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for			Amounts paid.	Total amount paid.
		Superannuation.	Retirement.	Guarantee.		
	Vancouver—Con.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
McSpadden, M.	Salary as 3rd Class Exciseman from Sept. 1, 1915 to March 31, 1916		26 21	1 68	496 69	
	Salaries	43 92	1,379 89	76 38	22,132 13	
	Contingencies				7,476 11	
						29,608 24
	Victoria.					
Jones, R.	Salary as Collector for the year	39 96		7 20	1,952 76	
O'Sullivan, D.	" Deputy Collector Class "A" for the year	52 44		3 60	1,443 96	
Ridgeman, A. H.	" 1st Class Exciseman for the year	52 44		2 88	1,444 68	
Huggett, A. P.	" " " "		57 60 62 40	2 88	1,127 04	
Shaw, J.	" Deputy collector Class "A" for the year		32 40	3 60	613 92	
Clements, R. S.	" 3rd Class Exciseman for the year		45 82	2 88	875 87	
Schreiber, Nina E.	" " " " from July 1, 1915 to March 31, 1916		24 16	1 68	449 57	
	Salaries	144 84	222 38	24 72	7,907 80	
	Contingencies				2,849 18	
						10,756 98
	Yukon.					
Stingle, Jos. W	Salary as Collector for the year		49 92	7 20	942 84	
	Salaries		49 92	7 20	942 84	
	Contingencies				70 00	
						1,012 84

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for			Amounts paid.	Total amounts paid.
		Superannuation.	Retirement.	Guarantee		
	DISTRICT INSPECTORS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
	Ontario.					
Gow, John E.	Salary as Inspector of Bonded Factories for the year.	55 93		9 00	2,735 01	
	Contingencies				922 00	3,657 01
Milller W. F.	Salary for the year			9 00	2,815 96	
	Contingencies				594 62	3,410 58
Powell, J. B.	Salary for the year			9 00	2,965 98	
	Contingencies				1,096 56	4,062 54
	Quebec.					
Bernier, J. A.	Salary for the year		121 24	9 00	2,294 75	
	Contingencies				440 90	2,735 65
Dumontier, J. A.	Salary for the year		139 92	9 00	2,651 04	
	Contingencies				640 58	3,291 62
	New Brunswick.					
McDonald, J., jr.	Salary for the year		108 69	9 00	2,057 28	
	Contingencies				1,101 74	3,159 02
	Manitoba.					
Code, A.	Salary for the year	48 00		9 00	2,343 00	
	Contingencies				1,297 21	3,640 21
	Alberta.					
Saucier, X.	Salary for the year	53 49		9 00	2,612 49	
	Contingencies				1,659 15	4,271 64
	British Columbia.					
Miller, J. E.	Salary for the year	60 00		9 00	2,831 05	
	Contingencies				1,912 17	4,843 17
	Inspector of Tobacco Factories					
Caven, W.	Salary for the year	57 45			2,817 48	
	Contingencies				769 11	3,586 [illegible]

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for.			Amounts paid.	Total amounts Paid.
		Superannuation.	Retirement.	Guarantee		
	DISTRICT INSPECTORS.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
	Inspector of Distilleries.					
Brain, A. F.	Salary for the year	93 57			2,581 41	
	Contingencies				1,089 02	
						3,670 43
	Inspector of Malt Houses and Breweries.					
Barrett, J. K.	Salary for the year				3,199 92	
	Contingencies				1,903 95	
						5,103 87

RECAPITULATION.

Excise Salaries	$ 491,336 90
" Contingencies	138,399 35
Balances due to Collectors April 1, 1915	49 08
" by Collectors March 31, 1916	343 98
	$ 630,129 31
Excise War Tax Contingencies	4,843 88
	$ 634,973 19

See Financial Statement No. 4, and 4A.

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	General Excise Contingencies.	$ cts.	$ cts.
British American Bank Note Co.	To pay for bottling labels supplied.	5,648 00	
Oertling Co.	" iron locks and brass labels	66 00	
Hugh Carson & Co., Ltd.	" 3 special trunks	66 00	
Lymans, Ltd.	" hailing tubes and bottles	75 81	
The Pritchard — Andrews Co., Ltd.	" tobacco rollers, stamps and daters	239 35	
J. A. Desrivières	" lumber	60 50	
Charlotte Scales	" vaults and store rooms, cleaning	314 00	
P. A. Hughes	" petty cash charges	145 34	
Registrar Exchequer Court.	" writ of assistance	23 05	
L. G. Roy	" postage stamps	30 00	
A. A. Taillon	" special translation	1 35	
Graydon & Graydon	" professional services	25 00	
Gurney Scale Co.	" tobacco scales repaired	1 85	
The Dominion Warehousing Co., Ltd.	" freight storage	2 03	
E. J. Leacy	" re O'Brien explosives manufacturing	53 85	
L. Laframboise	" special translation	45 24	
M. Morisset	" "	16 20	
Hughes Electric Heating Co., Chicago.	" electrical articles	14 25	
	Excise Examinations.		
J. A. Bernier	In connection with special class	107 12	
W. Caven	" "	88 75	
A. F. Brain	" "	224 23	
J. E. Gow	" "	108 85	
J. B. Powell	" "	26 50	
John McDonald, jr.	" "	120 00	
J. T. Oliver	Attending special class examination	2 00	
A. Uffelman	" "	2 05	
G. E. Dunbar	" "	2 00	
E. J. A. Johnston	" "	2 00	
E. A. McPherson	" "	6 40	
C. Granton	" "	6 40	
E. McNally	" "	6 40	
E. Gauvin	" "	2 05	
	Total		7,382 [illegible]
	Law Costs.		
J. A. Piette	Law costs Rex vs N. Meunier	10 00	
R. Ducharme	" M. Duranceau	105 65	
Landry & Landry	" Edmonton Vinegar Works	101 10	
Rainville & Gagnon	" G. Brunet	20 00	
J. Bruno Nantel	" S. Egger	24 00	
" "	" A. Boucher	41 00	
W. F. McRae	" " I. Corbeil	26 00	
A. A. MacDonald	" " John McKenna	22 00	
A. F. Simpson	" " W. Pare	27 55	
Fauteux & Fauteux	" " H. Boyer	20 00	
	" " Eagle Cigarettes Co.	30 00	
	" " J. Dubuisson	20 00	
	" " Granges Co.	5 00	
	" " C. Gauthier	10 00	
	" " J. Samiel	10 00	
	" " Beaudoin	10 00	

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
		$ cts.	$ cts.
Fauteux & Fauteux—*Con.*	Law costs Rex *vs.* Chartrand	20 50	
	" " M. Voskolovich	10 00	
	" " L. Plamondon	10 00	
	" " L. Mailloux	20 50	
	" " A. Pelletier	10 00	
	" " H. Barbe	24 00	
	" " Fontaine	20 00	
	" " Rosine	20 50	
	" " S. Langlois	20 50	
	" " T. Derome	24 00	
	" " A. Derome	24 00	
	" " F. de Blance	10 00	
	" " Biagis	10 00	
	" " Herman	10 00	
	" " Folchinsky	10 00	
	" " Chenevolsky	10 00	
	" " Greenfield	10 00	
	" " Bourassa	10 00	
	" " A. Proulx	10 00	
	" " E. Gaudet	10 00	
	" " N. Daoust	10 00	
	" " B. J. Boyer	10 00	
	" " C. Lippens	10 00	
	" " N. Lalonde	12 00	
W. Laliberté	" " A. Senecal	85 60	
Leblanc, Brossard, Forest & Lalonde.	" " L. Charbonneau	20 00	
	" " A. Charbonneau	20 00	
	" " G. L. J. Tremblay	20 00	
A. Leblanc	" " A. Theriault	30 00	
	" " A. Petit	15 00	
	" " A. Colette	14 00	
J. A. Grierson	" " W. Comeau	54 70	
M. Rousseau	" " E. Daigle	55 60	
W. J. Baird	" " Wong Sam	5 00	
"	" " N. A. Pappas	40 00	
Meredith & Meredith	" " A. H. Brenner	50 00	
W. J. Kidd	" " N. Drizen	40 00	
O. Gagnon	" " J. Wintband	10 00	
	" " J. Therien	10 00	
	" " M. Slodick	20 00	
	" " J. P. Parman	10 00	
	" " Gibouleau	40 00	
	" " Mount Royal Liquor Grocery	20 00	
	" " R. Jacobson	20 00	
	" " B. Lipson	20 00	
	" " S. Feldman	20 00	
	" " Abrahamson & Co	20 00	
	" " F. Miller	40 00	
	" " A. Paquette	10 00	
	" " Lipson	26 60	
	" " Bergeron	39 90	
	b " Abrahamson & Co	24 10	
	" " Mount Royal Liquor Grocery	24 20	
	" " Jacobson	24 80	
	" " S. Feldman	38 30	
			1,704 90
			9,236 97
American Bank Note Co	To pay for stamps and labels supplied		83,512 95
	Total		92,749 92

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APPENDIX B.—No. 1.—Details of Excise Expenditures for the year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Excise Provisional Allowance.	$ cts	$ cts.
Gosnel, T. S., Winnipeg.	To pay Code, A.	99 96	
	" Verner, T. H.	99 96	
	" Long, W. H. A.	99 96	
	" Larivière, A. C.	99 96	
	" Sparling, J. W.	124 92	
	" Earl, R. W.	124 92	
	" Hammond, T. W.	124 92	
	" Morris, T. H.	124 92	
	" Forsyth, D.	124 92	
	" Nicholl, F. A.	124 92	
	" Currie, W. W.	124 92	
	" Ivey, W. J.	124 92	
	" Greig, W. G.	124 92	
	" Barrett, J. P.	124 92	
	" McNiven, J. D.	49 92	
	" Fegan, P. J.	143 73	
	" Ashton, H.	150 00	
	" Davis, T. J.	150 00	
	" Pelanger, A.	150 00	
	" Miller, J. C.	150 00	
	" Johnson, J. D.	150 00	
	" Cosgrove, J. B.	100 00	
			2,692 69
Fletcher, R. W., Calgary.	" Foucar, H.	54 13	
	" McKenty, J.	54 13	
	" Sobey, R. E.	54 13	
	" Gray, W. B.	54 13	
	" Barnard, A. H.	81 25	
	" Fletcher, R. W.	100 00	
	" Markley, A. W. R.	125 00	
	" Wood, C. F.	135 49	
	" Richardson, W.	135 49	
	" Davies, W. E.	162 50	
	" Dalgetty, Jas.	150 00	
	" Joughin, W. J. C.	150 00	
	" Pierce, A. H.	150 00	
	" Richards, D. H.	150 00	
	" Fidler, H.	162 50	
	" Fiddler, E.	162 50	
	" Farrell, W. G.	162 50	
	" McKibbon, W. S.	162 50	
	" Prince, A.	162 50	
			2,368 75
Conklin, W. M., Moosejaw.	" Bell, W. H.	150 00	
	" Hall, L. H.	150 00	
	" Anderson, J. H.	150 00	
	" Campbell, T. N.	150 00	
	" Goudie, D. A.	125 00	
	" Scott, J. O.	125 00	
	" Conklin, W. M.	100 00	
	" Panton, A. M.	6 25	
	" McGowan, W. J. H.	50 00	
	" Hayes, F. C.	45 76	
			1,052 01
Parkinson, E. B., Vancouver.	" Grantham, A.	127 46	
	" McSpadden, M.	150 00	
	" Quinn, T.	150 00	
	" Gibson, J. V.	150 00	
	" McLachlan, P.	150 00	
	" Morgan, E. J.	150 00	
	" Deely, F.	118 08	
	" Simpson, G.	134 92	
	" MacDonald, G.	134 92	
	" Corsan, K. C.	134 92	

APPENDIX B.—No. 1.—Details of Excise Expenditures for the year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Excise Provisional Allowance—Con.	$ cts.	$ cts.
Parkinson, E. B. Vancouver—*Con.*	To pay Carmichael, D.	124 92	
	" Wolfenden, W	124 92	
	" Sutherland, W	124 92	
	" Gray, R. S.	124 92	
	" Scanlan, T. J.	124 92	
	" Thorburn, Jas	99 96	
	" Allen, G. A	99 96	
	" Chilver, F. W	99 96	
	" Grigor, R. W.	75 00	
	" Howell, T	75 00	
	" Atkins, B. R.	75 00	
	" Parkinson, E. B.	99 96	
	" Delahay, Wm	50 04	
	" Hambley, S. E	50 04	
	" Leishman, A	50 04	
	" Glenday, D.	33 21	
			2,778 59
Jones, R. Victoria.	" Clements, R. S.	150 00	
	" Robinson, W.	150 00	
	" Johnson, G.	150 00	
	" Huggett, A. P.	125 00	
	" Shaw, J.	125 00	
	" Ridgman, A. H.	100 00	
	" O'Sullivan, D.	100 00	
	" Jones, R.	100 00	
	" Schreiber, C. B.	150 00	
			1,150 00
	Total provisional allowance		10,042 04

SESSIONAL PAPER No. 12

APPENDIX B.—No. 1.—Details of Excise Expenditure for the Year ended March 31, 1916—*Continued.*

To whom paid.	Place of Residence.	Service.	Amounts paid.	Total Amounts paid.
		Commissions to Customs Officers.	$ cts	$ cts
Hastie, J. W.	Fort Frances	From Nov. 1, 1914, to March 31, 1915	103 17	
Jackson, H. B.	Rainy River	" April 1, 1913 " 1914	246 40	
Porter, A. R.	Melville	" " 1915 " 1916	37 72	
Munro, H. P.	Taber	" " " " "	213 57	
Sanborn, J. B.	Vermilion	" " " " "	75 74	
Dayton, G. F.	St. John	" " " " "	146 91	
Halliwell, H. T.	Estevan	" " 1915 " 21 "	140 12	
Porter, N.	Simcoe	" " " " 31, 1916	346 40	
Thomson, J. M.	Napanee	" " " " "	13 65	
Jackson, H. B.	Rainy River	" " " " "	246 40	
Hastie, J. W.	Fort Francis	" " " " "	146 40	
Kavanagh, A. J.	Gaspé	" " " " "	92 44	
Dayton, Geo. F.	Edmundston	" " " " "	146 40	
Ratchford, C. E.	Amherst	" " " " "	14 85	
Ball, J. A.	Dauphin	" " " " "	446 40	
McMillan, D. N.	Morden	" " " " "	246 40	
Hodson, F. H.	Rosthern	" " " " 3.	107 76	
Pidgeon, P.	Red Deer	" " " "	88 22	
Sanborn, J. B.	Vermilion	" " " "	107 62	
Grubb, W. B.	Faber	" " " " "	49 32	
Employers' Liability Association Corporation, Limited.	Montreal	Guarantee from Apr. 1, '15, to Mar. 31, '16		3,015 82 31 40
Gillully, H. R.	Winnipeg	" " "	3 60	
McMillan, D. N.	"	" " "	3 60	
Grubb, W. B.	Calgary	" part of year	1 05	
Munro, H. P.	"	" "	2 55	
Ball, J. A.	Winnipeg	" for the year	3 60	
Porter, A. R.	Moose Jaw	" part of year	0 60	
Helliwell, T.	"	" "	2 60	
Sanborn, J. B.	Calgary	" for the year	3 60	
Hodson, F. M.	Moose Jaw	" part of year	3 30	
Fowlie, E. A.	"	" "	3 30	
Pidgeon, P.	Calgary	" for the year	3 60	
London Guarantee & Accident Association Co.	Toronto	Guarantee for the year		32 40
Boyd, A.	Picton	" "	3 60	
Clark, A. J.	St. John	" "	3 60	
Kirk, J. F.	"	" "	3 60	
McDonald, J. F.	Picton	"	3 60	
McPherson, E.	"	"	3 60	
Park, W. A.	St. John	" "	3 60	
Ratchford, C. E.	Halifax	" "	3 60	
Watt, G.	St. John	" "	3 60	
Dayton, G. F.	"	"	3 60	
Dominion of Canada Guarantee & Accident Co.	Toronto	"		32 40
Brown, G.	Owen Sound	"	3 60	
Daly, J. A.	Peterborough	"	3 60	
Jackson, H. B.	Port Arthur	"	3 60	
Macpherson M. J.	Owen Sound	"	3 60	
Porter, N.	Brantford	"	3 60	
Tyson, A. M.	Owen Sound	"	3 60	
Glass, J. J.	Peterborough	"	3 60	
Pierce, H. A.	Port Arthur	"	3 60	
Hastie, J. W.	"	"	3 60	
Railway Passengers Assurance Co.	Toronto	"		14 60
Thomson, J. M.	Kingston	"	3 60	
Britton, W. H.	Prescott	"	3 60	
Ross, W. T.	Belleville	"	3 60	

APPENDIX B.—No. 1.—Details of Excise Expenditure for the Year ended March 31, 1916—*Continued.*

To whom paid.	Place of Residence.	Service.	Amounts paid.	Total Amounts paid.
		Commissions to Customs Officers—Con.	$ cts.	$ cts.
Valleau, A. S.	Belleville	Guarantee for the year	3 60	
Polley, W. H.	"	" "	3 60	
Imperial Guarantee & Accident Co.	Toronto	" "		7 20
Blair, A.	Quebec	" "	3 60	
Kavanagh, A. J.	"	" "	3 60	
Guarantee Co. of North America	Montreal	" "		3 60
Martel, L.	St. Hyacinthe	" "	3 60	
		Total		3,140 89

APPENDIX B.—No. 1.—Details of Excise Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Duty-pay.	$ cts.	$ cts.
Abbott, F. H.	From January 28 to March 31, 1916	26 61	
Abbott, H. F.	" April 1, 1915 to January 27, 1916	123 39	
Adam, A. R.	" " to March 31, 1916	150 00	
Allen, G. A.	" " "	300 00	
Amor, Wm.	" " "	200 00	
Bayard, G. A.	" " "	150 00	
Bergeron, R. J.	" " "	150 00	
Berry, H. L.	" " "	200 00	
Bousquet, J. O.	" " to Nov. 22 and Nov. 29, to March 31, 1916	146 62	
Bouteiller, G.	" April 1, 1915 to March 31, 1916	300 00	
Boyd, J. F. S.	" " "	150 00	
Brennan, J.	" " "	150 00	
Brossard, W.	" July 2, 1915 to August 24, 1915	14 52	
Brown, W. J.	" April 1, 1915 to March 31, 1916	100 00	
Byrne, W. P.	" " "	150 00	
Cahill, J. W.	" " "	150 00	
Champagne, A.	" " "	116 54	
Champagne, O.	" Nov. 1, 1915 to March 31, 1916	41 67	
Chaput, N. J.	" April 1, 1915 to March 31, 1916	150 00	
Cheseldine, J. H.	" " "	166 40	
Chilver, F. W.	" " "	200 00	
Cole, W. J.	" April 13, 1915 to March 31, 1916	96 67	
Coleman, J. J.	" April 1, 1915 to March 31, 1916	300 00	
Corriveau, O.	" " "	100 00	
Cumminford, F. D.	" " "	150 00	
Dalgetty, J.	" " "	100 00	
Davids n, J. Est. of late.	" " to May 23, 1915	21 77	
Davis, T. J.	" " to March 31, 1916	100 00	
Denis, J. L.	" " "	150 00	
Desaulniers, J. E. A.	" " "	132 76	
Doyle, B. J.	" " "	150 00	
Doyle, P. P.	" Nov. 16, 1915 to Feb. 1, 1916	21 12	
Eakins, G. G.	" April 1, 1915 to March 31, 1916	150 00	
Egener, A.	" " "	150 00	
Elliott, W. J.	" " "	150 00	
Fairley, W.	" " "	100 00	
Falconer, J. E.	" " "	150 00	
Feik, L.	" " "	150 00	
Gariepy, L. N.	" " "	150 00	
Gauthier, W.	" August 2, 1915 to Aug. 22, 1916	5 64	
Gauvin, E. A.	" April 1, 1915 to March 31, 1916	200 00	
Gerald, C.	" " "	300 00	
Gerald, W. H.	" " "	300 00	
Graham, A. L.	" " "	200 00	
Granton, Chas.	" " "	150 00	
Gray, R. S.	" " "	150 00	
Hadley, W. J.	" Oct. 1, 1915 to March 31, 1916	75 00	
Hardy, W. A. G.	" April 1, 1915 to "	134 54	
Helliwell, H. N.	" " "	150 00	
Howie, A.	" " "	150 00	
Hughes, M.	" Oct. 1, 1915 to "	75 00	
Hurst, L. B.	" April 1, 1915 to "	200 00	
Jamieson, R. C.	" " "	300 00	
Jones, A.	" " "	150 00	
Johnson, J. J.	" " "	100 00	
Keogh, P. M.	" " "	150 00	
Lally, J. E.	" " "	150 00	
Lamoureux, J.	" Nov. 22, 1915 to "	71 04	
Lane, T. M.	" April 1, 1915 to "	200 00	
Langevin, H. H.	" " "	116 54	
Laponte, J.	" Oct. 1, 1915 to "	50 00	
Lyons, E.	" April 1, 1915 to "	150 00	
McArthur, G. H.	" " "	300 00	
McLaughan, F. H.	" " "	135 80	

APPENDIX B.—No. 1.—Details of Excise Expenditures for the year ended March 3, 1916—*Concluded.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Duty-pay—Con.	$ cts.	$ cts.
McMartin, A. G.	From April 1, 1915 to March 31, 1916	150 00	
McNally, E	" " "	150 00	
McPherson, E. A.	" " "	200 00	
MacDonald, A. B.	" " "	250 00	
Marin, L.	" August 18, 1915 to "	94 36	
Martin, N.	" April 1, 1915 to "	200 00	
Miller E.	" Arril 1, 1915 to Sept. 30, 1916	75 00	
Millier. E.	" Oct. 15 1915 to March 31, 1916	87 50	
Milot, J. F.	" Sept. 19, 1915 to "	196 11	
Monforton, E. R.	" April 1, 1915 to "	100 00	
Morris, T. H.	" " "	100 00	
Murray, D.	" " "	300 00	
Niven, T. D.	" " "	150 00	
Normandin, G	" " "	300 00	
O'Brien, J. F.	" " "	250 00	
Olivier, H	" " "	150 00	
Olivier, J. A.	" " "	200 00	
O'Neil, G	" " "	150 00	
Panneton, G. E.	" " "	100 00	
Poitras, W.	" " "	100 00	
Quinn, J. D.	" " "	212 50	
Rogers, H. A.	" April 1, to April 12 1915	3 33	
Rousseau, E. H.	" Oct. 1, 1915 to March 31, 1916	50 00	
Shorey, A. B	" April 1, 1915 to March 21 1916	150 00	
Smith, D. L	" Sept. 9, to Sepl. 26, 1915	3 89	
Snowden, J. W.	" April 1, 1915 to March 31, 1916	300 00	
Sprague, F. W.	" " "	200 00	
Sutherland, W.	" " "	150 00	
Tellier, J. O.	" " to Sept. 30, 1815	50 00	
Thomas, F. W.	" " to March 31, 1916	150 00	
Thomas, R	" " "	150 00	
Thurber, Geo.	" May 25 1915 to "	85 21	
Treverton, C. B.	" April 1, 1915 to "	116 67	
Uffellman, A.	" " "	150 00	
Walsh, D. J	" " "	300 00	
Walsh, W. H.	" " "	150 00	
Wilson, H. R	" " to October 31, 1915	75 00	
Wood, C. E.	" " to March 31, 1916	109 27	
Young, J. J.	" " "	150 00	
	Total		15,281 16

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APPENDIX B.—No. 1.—Details of General War Tax Expenditure for the year ended March 31, 1916—*Continued.*

To whom paid.	Service	Amounts paid.	Total amounts paid.
	General War Tax Contingencies.	$ cts.	$ cts.
Laroche, J. B.	Work at Methylated Warehouse	785 00	
American Bank Note Co.	Stamps supplied	17,247 54	
Timmons, R.	Travelling Expenses	20 95	
Munro, H. P.	Commission	30	
Livernois, J. E.	Express charges	65	
			18,054 44
	Law costs.		
Seguin, C. A.	Rex *vs* F. O. Rossini	20 00	
"	" O. Gravelle	20 00	
Champagne, N.	" D. Duval	10 00	
"	" W. Sarrazin	60 00	
"	" W. Sarrazin	50 00	
"	" W. Sarrazin	5 00	
"	" E. Lachance	10 00	
"	" A. Foran	15 00	
Thurston & Co.	" Cunningham	10 00	
Baird, W. J.	" Chim Ying Yon	10 00	
"	" C. Chew	26 70	
"	" Long Wong	44 00	
"	" Wong Yet Him	45 80	
Leblanc, Brossard and Forest	" J. H. Therien	20 00	
Fauteux, F.	" E. Quevillon	10 00	
Fleming, Drake and Foster	" Booster Co., Ltd	20 00	
Fauteux & Fauteux.	" Hodgson	10 00	
	" Goyer	10 00	
	" Arcand	20 00	
	" Matthews	10 00	
	" Sicard	10 00	
	" Sokoransky	10 00	
	" Miller & Burwasser	10 00	
	" Laubick	20 00	
	" Daigle	10 00	
	" Lacombe	10 00	
	" Vidricaire	10 00	
	" St. Cerny & Chapdelaine	10 00	
	" Lanctot Ltd	10 00	
	" E. Pepin	20 00	
	" Dufour	10 00	
	" Richard	10 00	
	" F. H. Vamaltan	20 00	
	" A. Schnurr	14 00	
	" W. Chamberland	14 00	
	" Larose	10 00	
	" Corfsky	14 00	
	" A. Berube	14 00	
	" Sweet House Palace	14 00	
	" F. St. Vincent Ltd	14 00	
	" A. E. Gadbois	14 00	
	" E. St. Pierre	14 00	
	" J. F. Leduc	14 00	
	" A. Morin	14 00	
	" Cafe Chateaubriand	14 00	
	" R. Lussier	14 00	
	" E. Ethier	14 00	
	" O. Gibeau	14 00	
Hammond, J. H.	" F. M. Hoffey	20 00	
Lowell, J. R.	" S. A. Murphy	20 25	
Morand, L.	" J. A. Ross	10 00	
"	" A. Beaulieu	20 00	
"	" E. Bergeron	20 00	
"	" F. Dermansky	20 00	
"	" S. Desbaie	20 00	
Leblanc, A.	" P. Lapierre	14 00	
"	" J. Lapierre	14 00	
Gagnon, O.	Hallman	20 00	360 75
			18,415 19

APPENDIX B.—No. 2.—Distribution of Seizures for the year ended March 31, 1916.

Division.	To whom paid.	Service.	Amounts paid.	Total amounts paid.
			$ cts.	$ cts.
Sherbrooke	A. F. Simpson	To pay informer ½ penalty in seizure No. 278	2 50	
Montreal	J. D. Fox	" " " " 1295	200 00	
"	"	" " " " 1294	25 00	
St. Hyacinthe	A. P. Cartier	" " " " 87	12 50	
Montreal	J. D. Fox	" " " " 1301	25 00	
"	"	" " " " 1302	25 00	
"	"	" " " " 1303	50 00	
"	"	" " " " 1304	25 00	
Perth	C. F. Stone	" " " " 14	50 00	
Montreal	J. D. Fox	" " " " 1299	50 00	
Joliette	C. P. Mainville	" " " " 144	50 00	
Montreal	J. D. Fox	" " " " 1300	25 00	
"	"	" " " " G5491	100 00	
"	"	" " " " 1306	50 00	
"	"	" " " " 1315	50 00	
"	"	" " " " 1316	100 00	
St. Hyacinthe	A. P. Cartier	" " " " 87	12 50	
Quebec	D. Arcand	" " " " 650	12 50	
Montreal	J. D. Fox	" " " " 1314	25 00	
"	"	" " " " 1319	50 00	
"	"	" " " " 1321	25 00	
"	"	" " " " 1292	25 00	
"	"	" " " " 1307	50 00	
"	"	" " " " 1311	50 00	
"	"	" " " " 1324	25 00	
"	"	" " " " 1326	25 00	
"	"	" " " " 1313	50 00	
"	"	" " " " 1327	100 00	
"	"	" " " " 1328	50 00	
"	"	" " " " 1330	25 00	
Perth	E. Floody	For his share of seizure " 14	11 40	
Joliette	G. N. Brabant	" " " 144	33 75	
"	D. J. Kearney	" " " 144	33 75	
Montreal	J. Comte	" " " 1206	1 50	
"	J. A. Lesperance	" " " 1206	1 50	
"	G. N. Brabant	" " " 1260	56 75	
"	"	" " " 1262	46 01	
"	"	" " " 1265	2 73	
"	"	" " " 1269	10 00	
"	"	" " " 1270	72 08	
"	"	" " " 1271	3 75	
"	"	" " " 1273	3 62	
"	"	" " " 1285	0 15	
"	"	" " " 1287	8 16	
"	"	" " " 1289	47 88	
"	"	" " " 1290	8 53	
"	"	" " " 1291	1 39	
"	"	" " " 1294	6 09	
"	"	" " " 1295	266 45	
"	"	" " " 1297	25 00	
"	"	" " " 1298	5 59	
"	"	" " " 1299	51 75	
"	"	" " " 1300	10 50	
"	"	" " " 1301	11 75	
"	"	" " " 1302	11 62	
"	"	" " " 1303	22 00	
"	"	" " " 1304	11 75	
"	"	" " " 1306	23 50	
"	"	" " " 5491a	50 00	
"	D. J. Kearney	" " " 1258	0 20	
"	"	" " " 1262	46 01	
"	"	" " " 1265	2 72	
"	"	" " " 1269	10 00	
"	"	" " " 1270	72 07	
"	"	" " " 1271	3 75	
"	"	" " " 1273	3 63	
"	"	" " " 1285	0 15	
"	"	" " " 1287	8 17	

SESSIONAL PAPER No. 12

APPENDIX B.—No. 2.—Distribution of Seizures for the year ended March 31, 1916.

Divisions.	To whom paid.	Service.	Amounts paid.	Total amounts paid.
			$ cts.	$ cts.
Montreal	D. J. Kearney	For his share of seizure No. 1289	47 87	
"	"	" " " 1290	8 53	
"	"	" " " 1291	1 38	
"	"	" " " 1294	6 08	
"	"	" " " 1295	266 45	
"	"	" " " 1297	25 00	
"	"	" " " 1298	5 60	
"	"	" " " 1299	51 75	
"	"	" " " 1300	10 50	
"	"	" " " 1301	11 75	
"	"	" " " 1302	11 63	
"	"	" " " 1304	11 75	
"	"	" " " 1306	23 50	
"	"	" " " 5491a	50 00	
"	J. D. Fox	" " " 1287	8 17	
"	"	" " " 1290	8 54	
"	"	" " " 1291	1 38	
"	"	" " " 1294	6 08	
"	"	" " " 1303	22 00	
"	J. A. Bernier	" " " 1258	0 20	
"	J. J. Costigan	" " " 1258	0 20	
"	C. Navert	" " " 1298	5 60	
St. Hyacinthe	G. N. Brabant	" " " 86	3 15	
"	D. J. Kearney	" " " 86	3 15	
"	J. D. Dumaine	" " " 87	1 38	
"	A. Galipeau	" " " 87	1 37	
Sherbrooke	J. A. Lamoureux	For his share of seizure No. 218	2 50	
Montreal	J. D. Fox	To pay informer ½ penalty in seizure No. 1317	25 00	
"	"	" " " " 1320	25 00	
"	"	" " " " 1311	50 00	
St. Hyacinthe	A. P. Cartier	" " " " 88	12 50	
"	"	" " " " 89	12 50	
Montreal	J. D. Fox	" " " " 1323	25 00	
"	"	" " " " 1311	100 00	
St. Hyacinthe	A. P. Cartier	" " " " 93	5 00	
Montreal	J. D. Fox	" " " " 1310	50 00	
"	"	" " " " 1335	100 00	
St. Hyacinthe	A. P. Cartier	" " " " 94	5 00	
"	"	" " " " 95	5 00	
"	"	" " " " 96	5 00	
Montreal	J. D. Fox	" " " " 1318	35 00	
"	"	" " " " 1329	50 00	
"	"	" " " " 1337	5 00	
"	"	" " " " 1338	12 50	
"	"	" " " " 1342	25 00	
"	"	" " " " 1343	200 00	
St. Hyacinthe	A. P. Cartier	" " " " 92	5 00	
"	"	" " " " 98	5 00	
"	"	" " " " 99	12 50	
"	"	" " " " 97	5 00	
"	"	" " " " 91	12 50	
"	"	" " " " 90	12 50	
"	"	" " " " 82	5 00	
Joliette	J. P. Manville	" " " " 145	12 50	
Montreal	J. D. Fox	" " " " 1339	50 00	
"	"	" " " " 1340	12 50	
Quebec	D. Arcand	" " " " 692	12 50	
St. Hyacinthe	A. P. Cartier	" " " " 100	25 00	
Halifax	T. C. James	" " " " 190	100 00	
Vancouver	E. B. Parkinson	" " " " 72	25 00	
Montreal	J. D. Fox	" " " " 5857	75 00	
St. Hyacinthe	A. P. Cartier	" " " " 101	12 50	
"	"	" " " " 102	12 50	
"	"	" " " " 103	25 00	
"	"	" " " " 104	12 50	
"	"	" " " " 105	12 50	
"	"	" " " " 107	12 50	
"	"	" " " " 108	12 50	

APPENDIX B.—No. 2.—Distribution of Seizures for the year ended March 31, 1916.

Divisions.	To whom paid.	Service.	Amounts paid.	Total amounts paid.
			$ cts.	$ cts.
Montreal	J. D. Fox	To pay informer ½ penalty in seizure No. 1354	100 00	
"	"	" " " " 1336	12 50	
"	"	" " " " 1358	25 00	
"	"	" " " " 1360	25 00	
"	"	" " " " 1362	100 00	
"	"	" " " " 1363	50 00	
"	"	" " " " 1366	50 00	
"	"	" " " " 1344	50 00	
"	"	" " " " 1348	5 00	
"	"	" " " " 1350	25 00	
"	"	" " " " 1351	100 00	
St. Hyacinthe	A. P. Cartier	" " " " 109	25 00	
"	"	" " " " 110	12 50	
"	"	" " " " 111	12 50	
"	"	" " " " 112	12 50	
"	"	" " " " 114	12 50	
"	"	" " " " 115	12 50	
"	"	" " " " 118	12 50	
"	"	" " " " 120	12 50	
"	"	" " " " 121	12 50	
"	"	" " " " 122	12 50	
Quebec	D. Arcand	" " " " 651	25 00	
"	"	" " " No. L139431	12 50	
"	"	" " " No. 654	12 50	
Montreal	D. J. Kearney	For his share of seizure No. 144	2 80	
"	"	" " " 1287	1 41	
"	"	" " " 1292	13 70	
"	"	" " " 1293	16 00	
"	"	" " " 1294	6 06	
"	"	" " " 1295	28 10	
"	"	" " " 1296	3 84	
"	"	" " " 1297	1 01	
"	"	" " " 1307	17 35	
"	"	" " " 1309	25 00	
"	"	" " " 1310	118 57	
"	"	" " " 1311	107 05	
"	"	" " " 1312	43 37	
"	"	" " " 1313	15 00	
"	"	" " " 1314	8 42	
"	"	" " " 1315	132 13	
"	"	" " " 1316	86 60	
"	"	" " " 1317	11 90	
"	"	" " " 1318	16 80	
"	"	" " " 1319	19 70	
"	"	" " " 1320	12 50	
"	"	" " " 1321	11 52	
"	"	" " " 1323	11 82	
"	"	" " " 1324	12 50	
"	"	" " " 1326	11 87	
"	"	" " " 1327	55 62	
"	"	" " " 1328	14 83	
"	"	" " " 1329	17 59	
Montreal	D. J. Kearney	For his share of seizure No. 1330	56 25	
"	"	" " " 1335	44 00	
Hamilton	M. C. Beasley	" " " 50	80 00	
"	W. A. D. Baby	" " " 51	80 00	
Montreal	D. J. Kearney	" " " 1301	0 45	
"	"	" " " 1302	0 52	
"	"	" " " 1304	0 12	
"	"	" " " 1306	0 20	
"	"	" " " 1338	4 37	
"	"	" " " 1339	23 37	
"	"	" " " 1340	8 68	
"	"	" " " 1342	36 32	
"	"	" " " 1343	138 80	
"	"	" " " 82	2 50	
"	"	" " " 84	2 50	
"	"	" " 98	6 00	

SESSIONAL PAPER No. 12

APPENDIX B.—No. 2.—Distribution of Seizures for the year ended March 31, 1916.

Divisions.	To whom paid.	Service.	Amounts paid.	Total amounts paid.
			$ cts.	$ cts.
Montreal	D. J. Kearney	For his share of seizure No. 99	2 68	
"	G. N. Brabant	" " " 144	2 79	
"	"	" " " 1254	45 75	
"	"	" " " 1287	1 42	
"	"	" " " 1292	13 70	
"	"	" " " 1293	16 00	
"	"	" " " 1294	6 06	
"	"	" " " 1295	28 11	
"	"	" " " 1296	3 83	
"	"	" " " 1297	1 01	
"	"	" " " 1303	6 50	
"	"	" " " 1307	17 35	
"	"	" " " 1309	25 00	
"	"	" " " 1310	118 58	
"	"	" " " 1311	107 05	
"	"	" " " 1312	43 38	
"	"	" " " 1313	15 00	
"	"	" " " 1314	8 43	
"	"	" " " 1315	132 14	
"	"	" " " 1316	86 61	
"	"	" " " 1317	11 90	
"	"	" " " 1318	16 80	
"	"	" " " 1319	19 70	
"	"	" " " 1320	12 50	
"	"	" " " 1321	11 53	
"	"	" " " 1323	11 83	
"	"	" " " 1324	12 50	
"	"	" " " 1326	11 88	
"	"	" " " 1327	55 63	
"	"	" " " 1328	14 83	
"	"	" " " 1329	17 50	
"	"	" " " 1330	56 25	
"	"	" " " 1335	41 00	
"	"	" " " 1301	0 45	
"	"	" " " 1302	0 53	
"	"	" " " 1304	0 13	
"	"	" " " 1306	0 20	
"	"	" " " 1338	4 38	
"	"	" " " 1339	23 38	
"	"	" " " 1340	8 00	
"	"	" " " 1342	36 30	
"	"	" " " 1343	138 80	
"	"	" " No. 65567	75 00	
"	"	" " No. 82	2 50	
"	"	" " " 84	2 50	
"	"	" " " 98	6 00	
"	"	" " " 99	2 68	
"	J. D. Fox	" " " 1287	1 42	
"	"	" " " 1293	16 00	
"	"	" " " 1294	6 06	
"	"	" " " 1303	6 50	
"	"	" " " 1310	118 58	
"	"	" " " 1313	15 00	
"	J. A. Lambert	" " " 1328	14 84	
Joliette	N. Roy	" " " 145	10 12	
"	J. E. Barrette	" " " 146	10 13	
St. Hyacinthe	J. D. Dumaine	" " " 87	3 85	
"	A. Galipeau	" " " 87	3 85	
"	J. A. Gervais	" " " 88	4 46	
"	"	" " " 89	4 46	
"	"	" " " 92	1 60	
"	"	" " " 93	1 60	
"	"	" " " 94	1 65	
"	"	" " " 95	1 65	
"	"	" " " 96	1 65	
"	J. A. Cadotte	" " " 88	4 47	
"	"	" " " 89	4 46	
"	"	" " " 94	1 65	

APPENDIX B.—No. 2.—Distribution of Seizures for the year ended March 31, 1916.

Division.	To whom paid.	Service.	Amounts paid.	Total amounts paid.
			$ cts.	$ cts.
St. Hyacinthe..	J. A. Cadotte.	For his share of seizure No. 91.....	1 26	
" ..	"	" " " 92.....	1 05	
" ..	"	" " " 93.....	1 05	
" ..	"	" " " 94	1 05	
" ..	"	" " " 95.....	1 05	
" ..	"	" " " 96.....	1 05	
" ..	"	" " " 100..... ...	23 00	
" ..	J. C. Raymond.....	" " " 90..	1 27	
" ..	"	" " " 91.....	1 26	
" ..	"	" " " 100....	23 00	
St. John.....	J. T. Kelly.	" " " 188..	37 80	
Halifax.....	C. W. Blethen.....	" " " 190	83 35	
Vancouver.....	Jas. Thorburn ...	" " " 69.....	2 35	
"	"	" " " 72.....	24 00	

RECAPITULATION.

Ontario....	$ 221 40
Quebec	7,419 87
New Brunswick.....	37 80
Nova Scotia.....	183 35
British Columbia....	51 35
	$ 7,913 77

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX B—*Continued.*

No. 3.—Details of Sundry Minor Expenditures for the Year ended March 31, 1916.

To whom Paid.	Service.	Amounts paid.	Total amounts paid.
	Proprietary or Patent Medicine Act.	$ cts.	$ cts.
Rudoff, Dr. R. D	For consultation as expert	400 00	
Blackader, Dr. A. D	" "	400 00	
Dufresne, J. A	Travelling expenses	83 90	
Stewart, H. A	Law costs Rex vs. Capsuloid Co	15 00	
Thurston & Co	" " D. B. Munro	20 00	
			918 90
	Printing		310 15
	Total		1,229 05

Inland Revenue Department,
Ottawa, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX B.

Details of Adulteration of Food Expenditure for the year ended March 31, 1916.

To whom paid.	Service.	Deductions for		Amounts paid.	Total amounts paid.
		Superannuation.	Guarantee		
	Kingston.	$ cts.	$ cts	$ cts.	$ cts.
Hogan, J	Salary as Inspector for the year		1 08	198 84	
	London.				
Talbot, J	Salary as Inspector for the year		1 08	198 84	
	Toronto.				
Dager, H. J	Salary as Inspector for the year		1 08	198 84	
	Montreal.				
Kearney, D. J	Salary as Inspector for the year		1 08	398 88	
Costigan, J. J	" " "	9 96	1 08	488 88	
	Salaries	9 96	2 16	887 76	
	Quebec.				
Béland F. X. W. E	Salary as Inspector for the year		1 08	298 92	
	St. Hyacinthe.				
Rouleau, J. C	Salary as Inspector for the year		1 08	198 84	
	St. John.				
Ferguson, J. C	Salary as Inspector for the year	3 96	1 08	194 88	
	Halifax.				
Waugh, R. J	Salary as Inspector for the year		1 08	348 84	
	Charlottetown.				
Weeks, W. A	Salary as Inspector from April 1, 1915 to March 10, 1916		1 08	186 47	
	Winnipeg.				
Larivière, A. C	Salary as Inspector from April 1, to May 1, 1915		0 09		
	Calgary.				
Markley, A. W. R	Salary as Inspector for the year		1 08	298 92	
	Vancouver.				
Morgan, E. J	Salary as Inspector for the year		1 08	198 84	
	Victoria.				
O'Sullivan, D	Salary as Inspector for the year		1 08	198 84	
	Cape Breton Island.				
MacKeen, E. T	Salary as Inspector for the year		1 08	198 84	
	Rocky Mountains.				
Parker, Thos	Salary as Inspector for the year		1 08	198 84	
		13 92	16 29	3,806 51	3,836 72

No. 4.—Details of Adulteration of Food Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Adulteration of Food. *General Contingencies.*	$ cts.	$ cts.
McGill, for the Ottawa Laboratory	Special Assistance	1,095 16	
	Sundries	2,011 79	
			3,106 95
Forward, for the Halifax Lab'ry.	Special assistance	240 00	
	Sundries	1,729 56	
			1,969 56
Forster, for the Winnipeg Lab'ry	"	464 95	464 95
Dawson, for the Vancouver Lab'y	"	837 58	837 58
..... Hamilton, Ont.	Travelling expenses and purchases of samples	329 82	
Hogan, J., Kingston, Ont.	" "	232 06	
Talbot, J. London, Ont.	" "	252 40	
Dager, H. J., Toronto, Ont.	" "	365 84	
Costigan, J. J., Montreal, Que.	" "	830 80	
Kearney, D. J., Montreal, Que.	" "	282 78	
Beland, F. X. W. E., Quebec, Que.	" "	437 45	
Rouleau, J. C., St. Hyacinthe, Q.	" "	44 65	
Ferguson, J. C., St. John, N.B.	" "	467 05	
Waugh, R. J., Halifax, N.S.	" "	207 24	
Weeks, W. A., Charlottetown, P.E.I.	" "	101 74	
Larivière, A. C., Winnipeg, Man.	" "	551 77	
Markley, A. W. R., Calgary, Alta.	" "	459 00	
Parker, T. Nelson, B.C.	" "	358 75	
Morgan, E. J. Vancouver, B.C.	" "	200 58	
O'Sullivan, D., Victoria, B.C.	" "	182 86	
Mackeen, E. T., Cape Breton	" "	15 16	
			5,319 97
Brochu, O., Armagh, Que.	Special assistance and travelling expenses, etc	249 59	
Lavallée, V. P., Joliette, Que.	" "	1,056 38	
Gendreau, T., Montmagny, Que.	" "	287 75	
Cadieux, N., St. Jerome, Que.	" "	302 42	
Pelletier, A., Ste Perpetue, Que.	" "	56 41	
Roy, F. X., St. Philippe de Néri, Que.	" "	91 99	
Audet, J. E., St. Anselme, Que.	" "	763 09	
Blondin, E., Pierreville, Que	" "	813 23	
Deschenes, E., St. Octave, Que.	" "	45 35	
Hardy, L., Quebec, Que	" "	25 84	
Rioux, J. H., St. Fabien, Que.	" "	71 89	
Petipas, W. A., Tracadie	" "	175 79	
Scott, J. C., Regina, Sask.	" "	75 08	
Hall, L. H., Moosejaw, Sask	" "	738 00	
Rickey, J. A., Ottawa, Ont.	"	222 62	
			5,492 93
Ellis, Dr. W. H.	Retaining fees as member of advisory board of Food Standards	100 00	
Donald, Dr. J. T.	"	100 00	
			200 00
McKenzie, Prof. J. J.	Travelling expenses re Board of Examiners	147 10	
Choquette, Rev. C. P.	"	185 25	
Girdwood, Dr. G. P.	" "	170 00	
			492 35
Taillon, A. A.	Special translation	25 00	
Nantel, L.	"	8 25	
Fissault, J. A.	"	70 30	
Morrisset, M.	"	17 50	
			121 05
Hughes, P. A.	Petty expenses	3 30	
Collector of Customs	Duty on imported goods	1 80	
Chester, A. W.	Fertiliser testers	4 05	
Elmer & Amend	Italian asbestos	15 27	
Pritchard, Andrews Co., Ltd.	Stamps and repairs	20 26	
Alexander & Campbell	Construction of storage rooms and fixing explosive	234 53	
Hague, J.	Erecting shelving	30 48	
			309 79

No. 4.—Details of Adulteration of Food Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Adulteration of Food. *General Contingencies.*	$ cts.	$ cts.
	Law Costs.		
Ross, W. L.	Law costs rex *vs.* H. W. Eaton	55 52	
"	" W. Jones	25 00	
"	" H. W. Eaton	53 93	
"	" Bennett & Son	15 52	
"	" Hamilton Bridging Assn	14 07	
Cr. R. G. for D. Arcand	Deposited to credit of excise seizures	45 67	
Plante, A	Law costs rex *vs.* Montreal Cotton Co	10 00	
"	" T. S. Montgomery	12 00	
Blewett, F. R.	" J. Walsh	25 00	
"	" Nectar Mfg. Co	139 39	
Hartley, J. C.	" Bern & Turney	20 00	
"	" G. W. Boyer	10 00	
Langlois, J. C.	" Capleton Fertilizer Co	5 00	
Bérubé, Leo	" J. L. Proulx	52 50	
Innes & Mackay	" Edmunds	20 06	
"	" G. O. Werrett	10 05	
"	" O. R. Hanset	20 06	
Légaré, Thos.	" G. A. Coderre	25 75	
"	" P. Lapointe	48 20	
Leclerc, F.	" D. Hebert	16 80	
Drew, J. J.	" J. B. Broadfoot	21 00	
Carbould, Grant & McColl	" T. A. Muir	10 00	
Smith, A. L.	" Algnire	20 00	
"	" R. Murdock	10 00	
"	" R. Runions	20 00	
Smith, A. L.	" Casselman' Bros	5 00	
Webster, Chas. R.	" F. Walker	49 50	
Bolduc, R.	" C. Berberie	44 55	
Wilson, N. C.	" D. Sampson	25 41	
Barnet, J.	" O. C. Lapps	45 00	
Robertson, N. G. M.	" R. E. Broadfoot	50 00	
Macdonald & Costello.	" J. A. McDonald	10 00	
Cowan, J. E	" W, C. Broadbent	10 00	
" " "	" J. W. Philips	10 00	
Campbell & Pitblads Co.	" F. C. Fraser	10 00	
Benson, B. S.	" W. H. G. Gibbs	20 00	
Morand & Savard.	" O. Pamalon	10 00	
" "	" E. Lacasse	10 00	
" "	" B. Lacroix	10 00	
" "	" A. Bilodeau	10 00	
" "	" J. Labonte	10 00	
" "	" A. Fonrnier	10 00	
Jermyne, J. W.	" F. R. Bailey	10 75	
" "	" Central Drug Store	10 34	
Aikman, J. A.	" D. H. Ross & Co.	60 00	
" "	" W. Diver	10 00	
" "	" G. A. Fraser & Co	10 00	
" "	" National Drug Co	20 00	
Pincott, C. F. R.	" Co-operative Italian Assn	25 25	
" "	" E. W. Hazelwood	25 75	
" "	" Trail grocery	20 00	
" "	" Hunter Bros.	20 00	
" "	" T. Lauriente, Ltd	25 75	
Tweedie, McGillivray & Barron.	" Bow Marsh	10 00	
" "	" N. S. Piette	15 00	
" "	" Allen & Allen	15 00	
" "	" R. Wright	15 00	
" "	" M. Nagler	15 00	
" "	" G. W. Piette.	15 00	
" "	" B. I. Callaghan	15 00	
" "	" G. W. Young	15 00	

SESSIONAL PAPER No. 12

No. 4.—DETAILS of Adulteration of Food Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	ADULTERATION OF FOOD—*Con.*	$ cts.	$ cts.
	General Contingencies—Con.		
Tweedie, McGillivray & Baron..	Law costs Rex *vs.* P. I. Moirow	15 00	
" "	" Simington & Co., Ltd	15 00	
Maulson & Horrison	" R. W. Hutton	20 00	
Temple, F	" Hudson's Bay Co	21 52	
Harris, W. H	" Chs. McArthur	10 00	
Kidd, W. J	" Jos. Grant	20 00	
Ruttan, G. F	" Lovelace	45 85	
Rigney, T. J	" R. W. Marshall	10 00	
" "	" Dr. A. P. Chown	10 00	
Robertson & McNab	" N. Oppcitshauser	15 00	
" "	" Bourgeman	11 50	
" "	" A. Fedy	8 00	
Fortin, G	" P. J. Revy	10 00	
" "	" A. Alexander	10 00	
Henson, R. B	" E. G. Hoben	10 00	
O'Brian, C. G	" J. Miron	23 00	
Bell, M. L	" A. Davies	25 90	
Chisholm, D. H	" W. D. Stephens	10 00	
Harrison, V. B	" W. Reynolds	10 00	
	" L. Gronbel	20 00	
Stewart, H. A	" Nappy	5 00	
	" Clifford	5 00	
	" W. C. Johnston	5 00	
Livernois, L. S.	" W. H. Parr	10 00	
Duchemin, H. P.	" E. S. Auld	10 00	
Landry & Landry	" Hudson's Bay Co.	10 00	
Wallace, E. E	" R. H. Mason	21 80	
Clarke, A. S	" J. S. Ireland	10 00	
Armstrong, A. J	" O. G. Johns	10 00	
	" A. J. Gauld	20 00	
	" W. H. A. Semple	20 00	
Smith, W. A	" M. Wigle	10 00	
	" T. J. Salmon	10 00	
Chisholm, W. A	" B. H. Walsh	10 00	
Morand, L	" E. Robitaille	20 00	
Taché, D	" J. A. Provencher	72 10	
Bernier, H	" J. Samson	20 00	
	" H. Turgeon	20 00	
	" O. Cote	49 45	
	" E. Juneau	117 01	
Gosselin, J	" P. Dumas	45 10	
Moore, W. H	" A. J. Johnstone	20 00	
	" J. Dourus	20 00	
McGarry & Costello	" H. Brydge	10 00	
	" P. J. Frood	10 00	
Fauteux, Fauteux	" Canada Maple Ex. Co	24 10	
			2 889 20
Ruttan, G. F	Law Costs Rex *vs* Silver	46 45	
McCullough & Britton	" A. Lewis	15 00	
" "	" I. Russell	15 00	
Amyot, W.	" C. Beaudoin	22 00	
"	" A. Fradette	22 00	
"	" F. X. Beldue	22 00	
"	" G. Samson	27 40	
"	"	25 00	
Marquis, A. W	" M. Gilmore	11 01	
"	" J. Becker	3 00	
"	" Bentham & Bradley	15 00	
Curran, F. J.	" Canada Flour Mills Co	30 00	

No. 4.—Details of Adulteration of Food Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Adulteration of Food.	$ cts.	$ cts.
	General Contingencies..		
Curran, F. J.	Law Costs Rex *vs.* E. J. Quinn	10 00	
"	" J. J. Bowen.	10 00	
"	" J. Goodman	10 00	
Macdonald & Drew	" "	20 53	
Piette, J. A	" A. Beaubien	36 80	
Coffin, H. E	" T. Bolton	10 00	
Hammond, J. H.	" J. H. Wilson & Son	10 00	
"	" Playfair & Preston Co.	12 25	
Turnbull & McCausland	" C. A. Stewart	20 00	
Carnew, W.	" The Hawley Metterville Co.	10 00	
"	" Belleville Pharmacy Co.	10 00	
Graham, J. W.	" A. Deviney	20 00	
Graydon & Graydon	" H. Baren;	20 00	
" "	" R. W. James	20 00	
J. Bruno Nantel	" J. A. Fournelle	34 00	
Murray & Mackinnon	" Cahill & Co	10 00	
" "	" S. Smith & Son	10 00	
" "	" Bauld Bros., Ltd.	10 00	
" "	" Coleman & Eisener	10 00	
" "	" Knock & Nicolle	10 00	
" "	" W. P. Meyer	10 00	
" "	" Wentzells Ltd.	10 00	
Mulcaster, R.	" Mainville & Co.	5 00	
Thurston & Co.	" W. W. Hall	20 00	
"	" R. P. Weeks	10 00	
"	" The Loblaw Stores	10 00	
"	" J. C. Sharpe	10 00	
"	" J. J. Coyle.	10 00	
"	" J. D. Cassie.	10 00	
"	" C. B. Sheilds.	20 00	
"	" M. Watson	10 00	
The Ontario Hughes Owens Co., Ltd.	Supplies and apparatus for laboratory	615 66	
Lymans Limited	" " "	230 17	
Hull Medical Hall	" " "	71 10	
Gooderham & Worts, Ltd	Alcohol for laboratory	35 19	
Guimond, Mrs.	For cleaning laboratorry	263 00	
Dessaint, Mrs.	" "	480 00	
Paulin E.	" "	278 00	
Gauthier, C.	" "	131 00	
Turpin, A.	" "	314 00	
Lafleur, E.	" "	314 00	
Gingras, D.	" "	26 00	
Farmer, C.	" "	268 00	
			2,014 00
	Equipment for Laboratories.		
The Ontario Hughes Owens Co., Ltd	Apparatus for Halifax	97 12	
Lymans Limited	" "	185 86	
The Topley Co.	" "	104 24	
Thornton & Truman	" "	103 75	
The Ontario Hughes Owens Co., Ltd	" Winnipeg	578 76	
Lymans Limited	" "	271 98	
Gooderham & Worts, Limited.	Alcohol "	38 41	
Thornton & Truman	Apparatus "	103 75	
The Ontario Hughes Owens Co., Ltd	" Vancouver	100 92	
Lymans Limited	" "	443 70	

No. 4.—Details of Adulteration of Food Expenditures for the Year ended March 31, 1916—*Concluded.*

To whom paid.	Service.		Amounts paid.	Total amounts paid.
	Adulteration of Food—*Con.*		$ cts.	$ cts
	General Contingencies—Con.			
The Topley Co.	Apparatus	Vancouver	130 11	
Johnson Matthey Co., Ltd.	"	"	838 27	
Thornton & Truman	"	"	103 75	
The British Columbia Distilling Co.	Alcohol	"	9 10	
				3,109 72
	Total.			
	Printing		10,514 64	
	Stationery		970 36	
				11,485 00

RECAPITULATION.

Food salaries	$	3,836 72
" contingencies		39,357 47
Special translation		121 62
	$	43,315 81

Inland Revenue Department,
Ottawa, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX B—No. 5—Details of Departmental Expenditures for the year ended March 31, 1916.

Names.		Rank. Division.	Rank. Sub-Division.	Salary.	Period.	Deduction for Superannuation.	Deduction for Retirement.	Deduction for Insurance.	Amounts paid.	Total amount paid.
				$		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Blondin, Hon. P. E.	Minister			7,000	From April 1 to Oct. 6, 1915				3,594 07	3,594 07
Patenaude, Hon. E. L.	"			7,000	From Oct. 1915 to March 31, 1916				3,405 93	3,405 93
Vincent, J. U.	Dep. Minister			5,000	For the year		250 00		4,750 00	5,000 00
Taylor, G. W.	Ass. Dep. Min. and Secr'y.	1	A	3,400	"	67 00			3,283 00	3,350 00
Magnan, J. A.	Superintendent of Patent Medicine Branch	1	A	3,300	From Feb. 23 to Mar. 31 '96,		17 07		324 31	341 38
Valin, J. E.	Chief Accountant	1	A	3,100	"				3,025 00	3,025 00
Shaw, J. F.	Chief Statistics Clerk	1	A	2,900	"				2,900 00	2,900 00
Doyon, J. A.	Clerk	1	B	2,800	"	32 66			2,767 34	2,800 00
Catellier, C. L.	Ass. Sec. of Dept.	1	B	2,100	"		105 00		2,013 19	2,118 19
Westman, T.	Clerk	1	B	2,600	"	52 00			2,548 00	2,600 00
Quain, R.	Ass. Accountant	1	B	2,400	"	6 00		61 92	2,332 08	2,400 00
Fowler, G.	Clerk	1	B	2,400	"				2,400 00	2,400 00
Laflamme, J. L. K.	Private Secrecary	1	B	2,400	From April 1 to Nov. 1, 1915		70 00		1,638 06	1,708 06
Gallagher, M. F.	"	1	B	2,100	From Nov. 1 to Mar. 31, 1916		43 75		1,081 25	1,125 00
Brodeur, P. E. S.	Clerk	2	A	1,850	For the year	6	92 50		1,757 50	1,850 00
Hughes, P. A.	"	2	A	1,800	"	33 00		55 92	1,691 08	1,800 00
McCullough A.	"	2	A	1,800	"	66 00			1,764 00	1,800 00
Halliday, W. A.	"	2	A	1,750	"	1 25			1,688 75	1,750 00
Roy, L. G.	"	2	A	1,750	"	61 25			1,688 75	1,750 00
Lemay, A.	"	2	A	1,750	"		77 40	11 96	1,458 61	1,547 97
Laliberté, J. A.	"	2	A	1,600	From May 3 to Mar. 31, 1916		72 90		1,385 16	1,458 06
Gervais, J. H.	"	2	B	1,600	For the year		80 00		1,520 00	1,600 21
Smyth, P. L.	"	2	B	1,300	From May 10 to Mar. 31, 1916		58 04		1,102 17	1,160 00
Teevens, L. P.	"	2	B	1,150	For the year		57 50	47 28	1,045 22	1,150 00
Allen, A. T.	"	2	B	1,150	"		57 50		1,092 50	1,150 00
Furlong, C. J.	"	3	A	1,200	"		60 00	111 60	1,028 40	1,200 00
Lawless, E. M.	"	3	A	1,200	"		60 00		1,140 00	1,200 00
Hagerty, B.	"	3	A	1,200	"		60 00		1,140 00	1,200 00
Doyle, E. F.	"	3	A	1,200	"		60 00		1,140 00	1,200 00
Goodhue, M. L. E. B.	"	3	A	1,200	"		60 00		1,140 00	1,200 00
Trumpour, G.	"	3	A	1,200	"		60 00		1,140 00	1,200 00
Evans, C. J.	"	3	A	1,200	"		60 00	41 04	1,098 96	1,200 00
Beard, M. H.	"	3	A	1,200	"		60 00		1,140 00	1,200 00
Lewis, H. B.	"	3	A	1,200	"		59 38		1,128 12	1,187 50
Lyon, A. V.	"	3	A	1,200	"		59 38		1,128 12	1,187 50

Yetta, R. P	"	3	A	1,150	"	40 25			1,109 75	1,150 00	
Robert, A	"	3	A	1,100	"		55 00		1,045 00	1,100 00	
Cantin, J. W. Z	"	3	A	1,100	"		55 00	53 04	991 96	1,100 00	
McKell, M. E. E	"	3	A	950	"		46 25		878 75	925 00	
Lallier, M. A. L	"	3	B	800	"		40 00		760 00	800 00	
O'Connor, M. E	"	3	B	700	"		35 00		665 00	700 00	
Tremblay, J	"	3	B	600	"		30 00		570 00	600 00	
Bourgouin, E	Messenger			800	"		40 00		760 00	800 00	
Roy, L	"			800	"		40 00		760 00	800 00	
Desroches, L	"			750	"		36 25		688 75	725 00	
McGill, A	Chief Analyst	1	A	3,600	For the year	72 00			3,528 00	3,600 00	
Lemoine, A	Analyst	1	B	2,200	"		108 75		2,066 25	2,175 00	
Valin, J. G	"	1	B	2,200	"		108 75	96 00	1,970 25	2,175 00	
Forster, E. L. C	"	1	B	2,200	"		108 75		2,066 25	2,175 00	
Forward, C. C	"	1	B	2,200	"		108 75		2,066 25	2,175 00	
Dawson, J. A. M	"	1	B	2,200	"		108 75		2,066 25	2,175 00	
Kitto, W. J	"	2	A	1,750	"		86 88		1,650 62	1,737 50	
Couture, A. P	"	2	A	1,650	From April 1 to Jan. 15, 1916		64 37		1,222,72	1,287 09	
Kirwan, P	"	2	B	1,300	For the year		65 00	21 60	1,213 40	1,300 00	
Landry, A. J	"	2	B	1,300	"		65 00		1,235 00	1,300 00	
Collier, F. C	"	2	B	1,300	"		65 00		1,235 00	1,300 00	
Cook, S. J	"	2	B	1,300	"		65 00		1,235 00	1,300 00	
Davidson, W. A	"	2	B	1,300	"		65 00		1,235 00	1,300 00	
Westman, L. E	"	2	B	1,300	From Oct. 1 to Mar. 31, 1916		32 50		617 50	650 00	
Rickey, J. A	Clerk	3	A	1,200	For the year		60 00	75 36	1,064 64	1,200 00	
Wright, S. E	"	3	A	1,200	"		60 00		1,140 00	1,200 00	
Ladouceur, F	"	3	A	1,200	"		60 00	75 12	1,064 88	1,200 00	
Leckie, T. L	"	3	B	800	"		40 00		760 00	800 00	
Bawn, J. H	Messenger			500	From April 1 to June 1, 1916		4 16		79 16	83 32	
Armstrong, W	Supt. of Met. Spirit	1	B	2,300	For the year		115 00		2,185 00	2,300 00	
Parent, F	Clerk	3	A	1,200	"		60 00		1,140 00	1,200 00	
Rioux, Y	Warehouse man.	L.	G	650	"		32 50		617 50	650 00	
Chartier, E	"	L.	G	650	"		32 50		617 50	650 00	
Dunn, J. F	"	L.	G	550	"		27 50		522 50	550 00	
Higman, O	Chief Elect. Engin. & of Gas	1	A	3,400	"		170 00		3,230 00	3,400 00	
Lamb, A. B	Assistant	1	B	2,600	"		130 00	5 85	2,464 15	2,600 00	
Dupre, H. A	Clerk	1	B	2,300	"		113 75	97 80	2,063 45	2,275 00	
Rutledge, P. R	"	1	A	1,600	"		80 00		1,520 00	1,600 00	
Cole, S. R	"	2	A	1,200	"		60 00		1,140 00	1,200 00	
Mathews, E. D. K	"	3	A	1,050	"		52 50		997 50	1,050 00	
Griffith, M. L	"	3	A	1,200	"		60 00		1,140 00	1,200 00	
Way, E. O	Chief Inspect. of W. and M.	1	A	2,900	"		145 00		2,755 00	2,900 00	
Ouellet, L. P	Clerk	1	B	1,600	"		80 00		1,520 00	1,600 00	
Watson, V. M	"	3	A	1,200	"		60 00		1,140 00	1,200 00	
Barbeau, L	"	3	B	800	"		40 00		760 00	800 00	
Burgess, T	Carpenter			1,000	"		50 00		950 00	1,000 00	
Chenier, E	Clerk	L.	G	650	"		31 88		605 62	637 50	
						491 41	4,575 21	754 49	124,583 17	130,404 28	

APPENDIX B.—No. 5.—Details of Department Expenditures for the Year ended March 31, 1916.

Names.	Service.	Amounts paid.	Total amounts paid.
		$ cts.	$ cts.
Cyr, H.	Salary as extra clerk for the year	637 50	
Montreuil, J. A.	" messenger from April 1st to 30th, 1915.	41 66	
Seguin, J. R.	" extra clerk for the year	500 00	
Ethier, J. P.	" " "	574 98	
Kirwan, P. T	" " from April 1 to 15, 1915	54 17	
Cook, S. J.	" " " 1 to 20, 1915	72 22	
Davidson, W. A.	" " " 1 to 20, 1915	72 22	
Landry, A. J.	" " " 1 to 19, 1915	68 61	
Westman, L. E.	" " " 1 to Sept. 30, 1915	650 00	
Charland, Dr. L. C.	" " " 1 to June 30, 1915	300 00	
Johnston, R.	" " from May 3 to Oct. 27, 1915	241 90	
Rooney, E. A.	" " " Sept. 13, 1915 to March 13, 1916	400 00	
Chenier, G. J.	" " " July 1 to Aug. 31, 1915	90 00	
Deguire, A. L.	" " " Nov. 8 to March 31, 1916	317 75	
Beaudet, P. A.	" messenger, Mar. 20, 1916 to 31, 1916	16 13	
			4,037 14
C. R. G. for King's Printer	Printing	4,471 21	
" "	Parliamentary publications	995 80	
Cr. R. G. for Cont. of Stationery	Stationery and books	3,574 03	
			9,041 04
C.P.R. Telegraph Co.	Telegrams	334 21	
G.N.W. Telegraph Co.	"	95 67	
			429 88
Blondin, Hon. P. E.	Travelling expenses	900 00	
Patenaude, E. L.	" "	700 00	
" "	Sundry "	7 50	
Vincent, J. U.	Travelling "	143 85	
McGill, A.	" "	308 57	
Higman, O.	" "	85 07	
Laflamme, J. L. K.	" "	450 00	
Way, E. O.	" "	192 00	
Taylor, G. W.	" "	33 05	
Catellier, C. L.	" "	539 90	
Rutledge, P. R.	" "	454 63	
Rickey, J. A.	" "	256 15	
Valin, J. A. G.	" "	41 70	
Lambe, A. B.	" "	104 80	
Lemay, A.	" "	10 95	
			4,228 17
The Bell Telephone	Messages	766 70	
			766 70
The Ottawa Wine Vaults Co.	Distillated Water	143 60	
R. Robert	Washing towels	97 50	
Ottawa Electric Ry.	Tickets	50 00	
Postmaster	Stamps	128 00	
American Express Co.	Express	70	
Dominion Express Co.	"	2 20	
Canadian Express Co.	"	5 62	
The Plaunt Hardware Co.	Hardware	20	
Stromberg Electric Co.	Repairs to electric time clock	4 44	
Mrs. M. J. O'Connor	Sundries	3 00	
Post Office Department	Stamps	8 28	
M. Lepine	Cartage	3 00	
Collector of Inland Revenue	War Tax Stamps	8 50	
Mahoney, J.	Cartage	28 25	
Bryson-Graham Co., Ltd.	Towels, etc.	29 70	
Landreville, M.	Cartage	50	
Thornton & Truman	Repairs to locks and keys	57 55	
Clairoux, O.	Cartage	247 50	
	Carried forward		18,502 93

APPENDIX B.—No. 5.—Details of Department Expenditures for the Year ended March 31, 1916—*Continued.*

Names.	Service.	Amounts paid.	Total amounts paid.
		$ cts.	$ cts.
	Brought forward		18,592 93
R. H. Pringle	Brokerage	22 00	
Birkett & Son	Hardware	20	
Murphy-Gamble Co	Brushes, etc	1 75	
Mahlig, F. W	Gift	1 00	
Auger, B.	"	1 00	
Canadian Pacific Ry. Telegraph Co.	Messages	6 00	
Great North Western Telegraph Co.	"	4 25	
W. Strachan Co	Cuspidor	65	
			855 39
Mercantile Agency, Toronto	Subscription	75 00	
The Daily Journal, Calgary	"	3 00	
The Citizen, Vancouver	"	1 00	
Vancouver Daily Province	"	3 00	
The Colonist, "	"	5 00	
The Week, Victoria	"	2 00	
Le Manitoba, St. Boniface	"	1 00	
North West Review, Winnipeg	"	1 50	
The Telegram, Winnipeg	"	3 00	
The World, Chatham, N.B	"	2 00	
L'Evangeline, Moncton, N.B	"	1 00	
The Globe, St. John, N.B	"	5 00	
Bridgewater Bulletin, Bridgewater	"	1 00	
The Herald, Halifax	"	7 50	
Windsor Tribune, Windsor, N.S	"	1 00	
The Intelligencer, Belleville	"	3 00	
The Planet, Chatham, Ont	"	4 00	
Guelph Herald, Guelph	"	4 00	
The Herald, Hamilton	"	3 00	
Daily Spectator, "	"	3 00	
The Labor News "	"	1 00	
The Farmers' Advocate, London	"	1 50	
Free Press, London	"	3 00	
The Journal, Ottawa	"	14 40	
Citizen "	"	24 00	
Free Press "	"	14 40	
Le Temps "	"	3 00	
The United Canada, Ottawa	"	1 50	
The Times, Peterborough	"	5 00	
The Standard, St. Catherines	"	3 00	
The Standard-Empire, Toronto	"	6 00	
Saturday Night "	"	9 00	
Toronto Daily Star "	"	2 00	
Globe Printing Co. "	"	9 00	
Mail and Empire "	"	3 00	
The News "	"	6 00	
The Canadian Mining Journal, Toronto	"	4 00	
Daily World, Toronto	"	10 00	
Catholic Register and Canadian Expansion, Toronto	"	1 00	
Evening Telegram, Toronto	"	4 00	
Freemason "	"	1 00	
Financial Post "	"	9 00	
The Express, Woodstock	"	1 00	
The Charlottetown Examiner, Charlottetown	"	2 50	
Bulletin des recherches historiques, Beauceville	"	2 00	
Le Progrès du Saguenay, Chicoutimi	"	1 00	
L'Action Canadienne, Fraserville	"	1 00	
	Carried forward		19,448 32

APPENDIX B.—No. 5.—Details of Departmental Expenditure for the Year ended March 31, 1916—*Continued.*

Names.	Service.	Amounts paid.	Total amounts paid.
		$ cts.	$ cts.
	Brought forward		19,358 32
La Semaine, Grand'Mère	Subscription	1 00	
L'Etoile du Nord, Joliette	"	0 75	
La Presse, Montreal	"	7 00	
The Gazette "	"	18 00	
La Patrie "	"	7 00	
Herald Printing Co., Montreal	"	6 00	
Montreal Star "	"	6 00	
Le Devoir "	"	15 00	
Revue Trimestrielle Canadienne, Montreal	"	4 00	
Le Pays, Montreal	"	3 00	
Le Nationaliste, Montreal	"	4 00	
L'Action, Montreal	"	4 00	
Le Moniteur du Commerce, Montreal	"	2 00	
La Revue Canadienne, Montreal	"	6 00	
Le Peuple, Montmagny	"	1 00	
Printing Chr nicle, Quebec	"	3 00	
La Vérité "	"	2 00	
L'Evènement "	"	3 00	
L'Action Sociale "	"	6 00	
La Nouvelle-France "	"	3 00	
La Semaine Commerciale, Québec	"	2 00	
Société de Géographie "	"	2 00	
Le Progrès du Golfe, Rimouski	"	1 00	
L'Eveil, Sorel	"	1 00	
Le Sorelois, Sorel	"	1 00	
La Tribune, St. Hyacinthe	"	1 00	
Courrier de St. Hyacinthe, St. Hyacinthe	"	2 21	
Le Canada Français, St-Jean	"	2 00	
Le Bien Public, Trois-Rivières	"	1 00	
Journal de Waterloo, Waterloo	"	1 00	
Le Patriote, Prince Albert, Sask	"	1 00	
American Food Journal, Chicago	"	2 50	
Scientific American, New York	"	8 25	
Tobacco World Printing Co., Philadelphia	"	2 00	
Bulletin de la Canadienne, Paris, France	"	4 00	
Canada News paper Co., London, Eng	"	7 00	
Jones Farrell, London, Eng	Subscription	17 03	
Journal of Gas Lighting Co., London, Eng	"	6 69	
Les Cloches de St. Boniface, St. Boniface	"	1 00	
Le Droit, Ottawa	"	6 00	
Le Moniteur Acadien, Shediac, N.B.	"	1 00	
			438 73
	Total		$19,797 05

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister

APPENDIX B.—No. 6.—Details of Weights and Measures Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee	Amounts paid.	Total amounts paid.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
	Belleville.					
Diamond, F. D.	Salary as Inspector for the year			3 60	1,096 32	
Kylie, R.	" Asst. Inspector for the year			1 80	798 12	
Howson, G. H.	" " " "			1 80	798 12	
Worrell, Jos.	" " " "			1 80	798 12	
	Salaries			9 00	3,490 68	
	Contingencies				2,063 18	
						5,553 86
	Hamilton.					
Sealey, J. C.	Salary as Inspector for the year			3 60	1,396 32	
Fitzgerald, E. W.	" Asst. Inspector for the year			1 80	998 16	
Wheatley, A. C.	" " " "			1 80	1,098 12	
Laidman, R. H.	" " " "			1 80	1,098 12	
Clegg, Jas.	" " " "			1 80	898 20	
Brick, J. H.	" " " "			1 80	998 16	
Von Newbronn, A.	" " " "			1 80	798 12	
Pryke, John	" " " "			1 80	798 12	
	Salaries			16 20	8,083 32	
	Contingencies				2,328 06	
						10,411 38
	Kingston.					
Gallagher, T.	Salary as Inspector for the year			3 60	1,196 40	
MacLean, C. F.	" Asst. Inspector for the year			1 80	798 12	
Davis, M. J.	" " "			1 80	698 16	
	Salaries			7 20	2,692 68	
	Contingencies				1,762 01	
						4,454 69
	London.					
Hughes, R. A.	Salary as Inspector for the year			3 60	1,396 32	
Coughlin, D.	" Asst. Inspector from April 1 to Sept. 15, 1915			82	454 71	
Thomas, J. S.	" Asst. Inspector for the year			1 80	998 11	
Liddle, D.	" " "			1 80	998 16	
Cole, T. A.	" " "			1 80	798 12	
Webbe, S. A.	" Inspector from July 1, 1915, to March 31, 1916			1 20	598 74	
Porter, A.	" " "			30	199 68	
	Salaries			11 32	5,443 80	
	Contingencies				4,419 16	
						9,863 96
	Ottawa.					
Hinchey, E. H.	Salary as Inspector for the year	33 00		3 60	1,813 40	
Breen, John	" Asst. Inspector for the year			1 80	1,098 1	
Hodgins, J. C. G.	" "			1 80	798 12	
Thompson, F. T. T.	" "			1 80	998 12	
Church, G. C.	" " "			1 80	798 12	
Grignon, E. S.	" from April 1 to June 1, 1915; transferred to Montreal			30	166 18	
Mattice, A. E.	" from July 1, 1915, to March 31, 1916			1 20	598 74	

APPENDIX B.—No. 6.—DETAILS of Weights and Measures Expenditures for the Year ended March 31, 1916.—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Ottawa—Con.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Chenier, T.	Salary as Asst. Inspector from July 1, 1915, to March 31, 1916.			1 20	373 74	
Revatt, W.	" " from Oct. 1, 1915, to March 31, 1916.			1 05	469 43	
	Salaries.	33 00		14 45	6,533 33	
	Contingencies.				9,241 51	15,774 84
	Toronto.					
McConvey, J. J.	Salary as Inspector for the year.			3 60	1,596 36	
Wright, R. J.	" Asst. Inspector.	24 00		1 80	1,174 20	
Smith, J. C.	" " "			1 80	1,198 20	
Cruikshank, J. L.	" " "			1 80	898 20	
Fallowdown, W. A.	" " "			1 80	998 16	
McEachern, C. A.	" " "			1 80	998 16	
Scarf, W. F.	" " from July 1, 1915, to March 31, 1916.			1 20	598 74	
Howe, T. E.	" " from Jan. 1, to March 31, 1915			30	249 69	
	Salaries.	21 00		14 10	7,711 71	
	Contingencies.				2,869 34	10,581 05
	Montreal.					
Archambault, J. E.	Salary as Inspector for the year.			3 60	1,796 40	
Daoust, J. A.	" Asst. Inspector for the year.	6 99		1 80	1,391 13	
Hébert, J. A.	" " "			1 80	1,398 12	
Baudet, E.	" " "			1 80	1,098 12	
Galipeau, J. B. N.	" " "			1 80	998 16	
Wilson, J. C.	" " "			1 80	998 16	
Bélanger, S. F.	" " "			1 80	1,198 20	
Chapleau, J. R.	" " "			1 80	798 12	
Poitras, D.	" " "			1 80	798 12	
Boyd, W. R.	" " "			1 80	798 12	
Grignon, E. S.	" " from June 1, 1915, to March 31, 1916.			1 45	642 93	
Gibault, A.	" Asst. Inspector, from July 1, 1915, to March 31, 1916.			1 20	598 74	
	Salaries.	6 99		22 45	12,514 32	
	Contingencies.				7,295 71	19,810 03
	Quebec.					
Roy, C. E.	Salary as Inspector for the year.			3 60	1,596 36	
LeBel, J. A. W.	" Asst. Inspector for the year.	38 40		1 80	1,059 72	
Knowles, Chas.	" " "			1 80	998 16	
Bourget, L. J.	" " "			1 80	998 16	
Beauchamp, L. E.	" " "			1 80	598 20	
Bernatchez, A.	" " "			1 80	598 20	
Duchesne, N.	" " "			1 80	598 20	
Couture, C. H.	" " "		87 60	1 80	510 60	
Lortie, J. A.	" " "			1 80	748 20	
Dagneau, J. T.	" " "			1 80	448 20	
Hudon, P. E.	" " from Jan. 1, to March 31, 1916.			45	74 55	
	Salaries.	38 40	87 60	20 25	8,228 55	
	Contingencies.				7,608 58	15,837 13

APPENDIX B.—No. 6.—Details of Weights and Measures Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for			Amounts paid.	Total amounts paid.
		Superannuation.	Retirement.	Guarantee.		
	Sherbrooke.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Delorme, O. C.	Salary as Inspector for the year			3 60	1,296 36	
Lemire, J. N.	" Asst. Inspector for the year		45 15	1 80	752 97	
Lamy, C.	" " from Jan. 1, to March 31, 1916			30	199 68	
	Salaries		45 15	5 70	2,249 01	
	Contingencies				3,462 55	
						5,711 56
	St. Hyacinthe.					
Morin, J. I.	Salary as Inspector for the year			3 60	1,296 36	
Champagne, J. A.	" Asst. Inspector for the year			1 80	898 20	
Boisvert, J. F.	" " "			1 20	368 80	
	Salaries			6 60	2,563 36	
	Contingencies				2,438 44	
						5,001 80
	Three Rivers.					
Lessard, A.	Salary as Inspector for the year			3 60	996 36	
Bolduc, E.	" Asst. Inspector for the year	66 00		1 80	782 16	
Dubord, E.	" " from Jan. 1, to March 31, 1916			30	199 68	
Carette, C.	" as Inspector for the year			30	199 68	
	Salaries	66 00		6 00	2,177 88	
	Contingencies				3,586 44	
						5,764 32
	St. John.					
Barry, James	Salary as Inspector for the year			3 60	1,296 40	
Bernier, J. A.	" Asst. Inspector for the year			1 80	898 20	
White, E. H.	" " "			1 80	948 12	
LeBlanc, O. J. O.	" " "			1 80	798 12	
Limerick, K. A.	" " "			1 80	598 20	
	Salaries			10 80	4,739 04	
	Contingencies				587 16	
						5,326 20
	Halifax.					
Dillon, D. H.	Salary as Inspector from April 1, to Aug. 25th 1915			30	99 82	
Waugh, R. J.	" " Asst. Inspector for the year.			1 80	698 16	
O'Brien, Wm.	" "			3 00	1,099 52	
	Salaries			5 70	1,921 50	
	Contingencies				2,477 01	
						4,301 29
	Pictou					
Dustan, Wm.	Salary as Inspector for the year	27 00		3 60	1,296 36	
Chisholm, J. J.	" as Asst. Inspector for the year			1 80	898 20	
Campbell, D. A.	"			1 80	748 12	
	Salaries	27 00		7 20	2,944 68	
	Contingencies				278 26	
						3,249 14

APPENDIX B.—No. 6.—Details of Weights and Measures Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for Superannuation.	Deductions for Retirement.	Deductions for Guarantee.	Amounts paid.	Total amounts paid.
	Charlottetown.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Davey, Edmund..	Salary as Inspector for the year.	.....	.....	3 60	1,096 32	
Hughes, Henry....	" as Asst. Inspector for the year..	.....	.....	1 80	848 16	
	Salaries....	...	.....	5 40	1,944 48	
	Contingencies.....	.... .	. .....	.... .	262 51	
						2,206 99
	Winnipeg.					
McKay, R.....	Salary as Inspector for the year..	.....	.....	3 60	1,196 40	
Gilby, W. F.....	" as Asst. Inspector for the year..	.....	.....	1 80	898 20	
Spicer, H..... ..	" " " ..	.....	.....	1 80	898 20	
McLean, D. J....	" " from April 1, to October 1, 1915, transferred to Regina ...	..	.....	82	409 18	
Grant, C. D.	" as Asst. Inspector for the year..	.....	.. ....	1 80	898 20	
Field, Wm. J....	" " from July 15, to March 31, 1916	.....	.....	1 80	598 74	
McKay, Jas	" " from July 15, to March 31, 1916	..	.....	1 80	598 74	
Attridge, J. B ...	" " from July 15, to March 31, 1916	.. ..	.....	1 05	598 89	
Harper, S.....	" as Mech. Scales Inspector from Dec. 1, 1915. to March 31, 1916.....	.	.....	60	466 04	
	Salaries	.. ..	.....	13 87	6,562 59	
	Contingencies	. ..	.. ...	... ...	5,466 94	
						12,029 53
	Calgary.					
Costello, J. W....	Salary as Inspector for the year.....	31 92	.. ....	3 60	1,564 44	
Macleod, W. J....	" as Asst. Inspector for the year..	.....	.....	1 80	898 20	
Gibson, C	" " " ..	. .	.. ....	1 80	898 20	
McDougall, J. C..	" " " ..	....	.....	1 80	898 20	
Fyfe, G. D.....	" as Mech. Scales Inspector from Feb. 1st, to March 31, 1916	.....	.....	60	299 40	
	Salaries....	31 92	.....	9 60	4,558 44	
	Contingencies...	..	.....	... ..	4,149 81	
						8,708 25
	Saskatoon.					
Johnston, C. W...	Salary as Inspector for the year....	. .	.....	3 60	1,596 36	
Welch, W. R. ...	" as Asst. Inspector for the year..	. ...	.....	1 80	998 16	
Wallace, R.... .	" " .	...	... .	1 80	898 20	
Courtenay, W. H	" as Mech. Scales Inspector from Dec. 1, 1915 to March 31, 1916.....	....	.. ....	60	466 04	
	Salaries	...	.....	7 80	3,958 76	
	Contingencies.....	..	... .	.....	8,793 48	
						12,752 24
	Regina.					
McLean, D. J....	Salary as Inspector from Sept. 1, 1915, to March 31, 1916..... ..	.....	.....	1 96	814 70	

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APPENDIX B.—No. 6.—Details of Weights and Measures Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Districts.	Deduction for			Amounts paid.	Total amounts paid.
		Superannuation.	Retirement.	Guarantee.		
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Suttie, T. C.	Salary as Asst. Inspector from Jan. 1, to March 31, 1916			60	466 94	
	Salaries			2 56	1,280 74	
	Contingencies				2,133 32	
						3,414 06
	Vancouver.					
Dutton, A. H.	Salary as Inspector for the year			3 60	1,196 40	
Harris, W. H.	" as Asst. Inspector for the year		56 16	1 80	792 00	
Shaw, John	" " "			1 80	348 12	
	Salaries		56 16	7 20	2,336 52	
	Contingencies				728 33	
						3,064 85
	Nelson.					
Parker, Thos.	Salary as Inspector for the year			3 60	1,246 32	
	Salaries			3 60	1,246 32	
	Contingencies				2,930 27	
						4,176 59
	Special Elevator Scales Inspector.					
Fyfe, G. D.	Salary as Inspector from April 1, 1915, to Jan. 16, 1916			3 00	1,497 00	
	Contingencies				625 54	
						2,122 54
	Yukon					
Stingle, Jas.	Salary as Inspector for the year			3 60	996 36	
	Contingencies				39 64	
						1,036 00
	Special Elevator Scale Inspector.					
Way, E. O.	Salary as Chief Inspector Contingencies				97 48	
						97 48
		162 27	254 91	213 60	95,797 99	
	Contingencies				76,098 02	
						172,523 75

No. 6.—Details of Weights and Measures Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Weights and Measures.	$ cts.	$ cts.
	Provisional Allowance.		
R. McKay, Winnipeg	To pay R. McKay	114 51	
"	" W. F. Gilby	137 50	
"	" H. Spicer	137 50	
"	" D. J. McLean	68 33	
"	" C. D. Grant	137 50	
"	" J. B. Attridge	137 50	
"	" W. J. Field	137 50	
"	" J. McKay	137 50	
"	" S. Harper	62 46	
			1,070 30
Thos. Parker, Nelson	" F. Williamson	150 00	
"	" Thos. Parker	124 92	
			274 92
C. W. Johnston, Saskatoon	" G. D. Fyfe	49 98	
" "	" W. R. Welch	150 00	
" "	" R. Wallace	150 00	
" "	" S. H. Wood	87 50	
" "	" A. I. Shaw	82 66	
" "	" J. T. Greig	150 00	
" "	" T. H. Fleming	147 50	
" "	" C. W. Johnston	99 96	
" "	" W. N. Courtney	68 70	
" "	" C. W. Underhill	52 08	
			1,038 38
D. J. McLean, Regina	" D. J. McLean	54 42	
"	" Thos. C. Suttie	72 87	
"	" A. I. Shaw	67 34	
"	" Jas. Eadie	43 17	
			237 80
A. H. Dutton, Vancouver	" A. H. Dutton	122 49	
" "	" W. H. Harris	150 00	
			272 49
J. W. Costello, Calgary	" G. D. Fyfe	50 02	
"	" J. W. Costello	100 00	
"	" N. F. Macleod	150 00	
"	" J. C. McDougall	150 00	
"	"		
"	" C. Gibson	150 00	
			750 02
	Total Provisional Allowance		3,493 91
	General Weights and Measures.		
	Contingencies.		
Hughes, P. A	Petty expenses	38 68	
Guimond, Mrs. U	Salary as charwoman	111 00	
Dufresne, Mrs	"	174 00	
The Pritchard-Andrews Co., Ltd.	Rubber stamps repaired	595 72	
Hugh Carson Co., Ltd	Leather cases	184 00	
Canadian General Electric Co.	100 flashlights	66 00	
Eclipse Plating Co	Nickle plating set scales	9 50	
The Burrows Stewart Milne Co.	For 400 test weights	720 00	
American Bank Note Co	Stamps supplied	55 00	
Ottawa Transportation Co., Ltd.	Cartage	2 15	
Alfred, J. H	Medical fees	4 00	
Ottawa Electric Co.	Electric current	125 00	
The Plaunt Hardware Co.	Batteries	6 24	
J. A. Desrivières	24 kit boxes	90 50	
			2,181 79

SESSIONAL PAPER No. 12

No. 6.—DETAILS of Weights and Measures Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
		$ cts	$ cts.
	Law Costs.		
Herrington, W. S.	Rex vs. H. W. Huff	10 00	
Thurston & Co.	" C. Taylor	10 00	
"	" R. Lawson	20 00	
"	" J. Badame	20 00	
"	" F. Aitcheson	10 00	
"	" W. S. Moulds	10 00	
"	" W. J. Simon	40 00	
Champagne, N.	" Sheekoolsky	20 00	
Smith, R. A.	" Tai You Youg	10 00	
Clark, A. S.	" John Steele	30 00	
Mahaffy & Blackstock	" H. C. Wooden	10 00	
Hatton, G. W.	" Fair & Spence	20 00	
Davidson, A. A.	" S. Miller	15 00	
McDonald & McBride	" Godfrey	10 00	
			235 00
			2,416 79

APPENDIX B.—No. 7—Details of Gas Inspection Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for			Amounts paid.	Total amounts paid.
		Superannuation.	Retirement.	Guarantee		
	Belleville.	$ cts.	$ cts.	$ cts.	$ cts	$ cts.
Bickle, W. J.	Salary as Inspector for the year	1 92		1 80	96 24	
	Contingencies				628 69	
						724 93
	Hamilton.					
Lutz, H.	Salary as Inspector for the year			3 60	1,496 40	
Lovell, E.	" Asst. Inspector for the year			1 80	998 16	
Smith, W. A.	" " " "			1 80	998 16	
Dennis, W. A.	" " " "			1 80	148 20	
Powell, J. B.	" " " "			1 80	298 20	
	Salaries			10 80	3,939 12	
	Contingencies				1,834 36	
						5,773 48
	London.					
Nash, A. F.	Salary as Inspector for the year			3 60	1,796 40	
Skelton, A. R.	" Asst. Inspector for the year			1 80	998 16	
Elliott, G. H.	" " " "			1 80	692 16	
Thrasher, W. A.	" " " "			1 80	198 12	
Rennie, Geo.	" " " "			1 80	198 12	
Orr, H. N.	" " " "			1 80	198 12	
Hillis, Jas.	" " for the year			1 80	898 20	
Jones, B. B.	" " from Nov. 1 to March 31, 1916: tranf. Calgary			75	499 25	
	Salaries			15 15	5,478 53	
	Contingencies				770 49	
						6,249 02
	ttawa.					
Morrisson, A. C.	Salary as Inspector for the year			3 60	1,396 32	
Bond, M. B.	" Asst. Inspector for the year			2 88	1,097 04	
Roche, W. J.	" " July 1, 1915 to March 31, 1916			1 98	1,097 94	
Chevrier, R. J.	" Asst. Inspector for the year			1 80	998 16	
	Salaries			10 26	4,589 46	
	Contingencies				3,517 87	
						8,107 33
	Toronto.					
Stiver, J. L.	Salary as Inspector for the year		90 00	3 60	1,706 40	
Pape, J.	" Asst. Inspector for the year			1 80	1,448 16	
Reesor, M. W.	" " " "			1 80	1,298 16	
Renahan, M. J.	" " " "			1 80	998 16	
Ogden, G. J.	" " " "			1 80	948 12	
Clark, H. M.	" " " "			1 80	998 16	
Johnstone, S. F.	" " " "			1 80	998 16	
Wilson, H. H.	" " " "			1 80	998 16	
Mills, A. E.	" " from April 1, 1915 to March 1, 1916, died February 8			1 65	823 35	
Hacker, A. N.	" Asst. Inspector for the year			1 80	798 12	
Shanacy, M.	" " " "	1 92		1 80	96 24	
Broadfoot, S.	" " " "	6 00		1 80	292 20	
Graham, J. M.	" " " "			1 80	198 12	
	Salaries	7 92	90 00	25 05	11,601 51	
	Contingencies				878 49	
						12,480 00

APPENDIX B.—No. 7.—Details of Gas Inspection Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for.			Amounts paid.	Total amounts paid.
		Superannuation.	Retirement.	Guarantee		
	Montreal.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Aubin, A	Salary as Inspector for the year	...	.....	3 60	1,996 32	
O'Flaherty, M. J.	" Asst. Inspector for the year	...	.....	1 80	1,198 20	
Aubin, Chas	" " "	....	.....	2 88	1,297 08	
Mann, W. M.	" " "	.....	.....	2 88	1,197 12	.....
Blandford, E. B.	" " "	...	.....	1 80	1,198 20	
Clayton, J. W	" " "	.....	.....	1 80	998 16	
	Salaries	.. .	.....	14 76	7,885 08	
	Contingencies	.....	.....	.....	631 87	
						8,516 95
	Quebec.					
Béland, F.X.W.E.	Salary as Inspector for the year	.....	.....	3 60	496 32	
						496 32
	Sherbrooke.					
Simpson, A. F	Salary as Inspector for the year	3 96	.....	3 60	192 36	
Bowen, F. C	" Asst. Inspector for the year	....	.....	1 80	298 20	
	Salaries	3 96	.....	5 40	490 56	
						490 56
	Fredericton.					
Wilson, John E.	Salary as Inspector for the year	....	.....	1 80	98 16	
						98 16
	St. John.					
Wilson, John E.	Salary as Inspector for the year	...	.....	3 60	1,396 32	
Ganter, E. L	" Asst. Inspector from Sept. 15 to March 31, 1916	.....	.....	1 05	587 63	
	Salaries	.	...	4 65	1,983 95	
	Contingencies	....	.....	...	242 50	
						2,226 45
	Halifax.					
Toale, John	Salary as Inspector for the year	...	.....	3 60	1,286 36	
Withers, S. W	" Asst. Inspector for the year	...	...	1 80	998 16	
Munro, H. D	" " "	1 92	.....	1 80	96 24	
	Salaries	1 92	..	7 20	2,380 76	
	Contingencies	....	.....	..	507 36	
						2,888 12
	Charlottetown.					
Bell, W. H	Salary as Inspector for the year	.....	.....	3 60	496 32	
						496 32
	Winnipeg					
Hamilton, R	Salary as Inspector for the year	.....	.....	3 60	1,646 40	
Babington, F. C	" Asst. Inspector for the year	.....	.....	1 80	1,198 20	
Ross, W. A	" " "	.....	.....	1 80	898 20	
Weber, L	" " "	.....	.....	1 80	1,098 12	
Pankhurst, Geo. T.	" " "	.....	.....	1 80	898 16	
Wood, Henry	" " "	.....	.....	1 80	898 20	
	Salaries	.....	.....	12 60	6,737 28	
	Contingencies	.....	.....	...	155 33	
						6,892 61

APPENDIX B.—No. 7.—Details of Gas Inspection Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for.			Amounts paid.	Total amounts paid.
		Superannuation.	Retirement.	Guarantee		
	Calgary.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Kyle, W. P.	Contingencies				332 13	332 13
	Victoria.					
Dresser, F.	Salary as Inspector for the year			3 60	1,396 32	
Shaw, J.	" Asst. Inspector for the year			1 80	98 16	
	Salaries			5 40	1,494 48	
	Contingencies				10 30	1,504 78
	Vancouver.					
Stott, Jas.	Contingencies				27 00	27 00
	Eastern Dominion Inspector.					
Lambe, A. B.	Contingencies				430 06	430 06
	Western Dominion Inspector.					
Higman, O. Jr.	Contingencies				735 54	735 54
	Grand Total	15 72	90 00	122 07	47,777 77	58,720 43
					10,714 87	

RECAPITULATION.

Superannuation	$ 15 72
Retirement	90 00
Guarantee	122 07
Salaries	47,777 77
Contingencies	10,714 87
Total	$58,720 43

APPENDIX B.

No. 7.—Details of Gas Inspection Expenditures for the year ended March 31, 1916—*Concluded.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	General Gas Contingencies.	$ cts.	$ cts.
Hughes, P. A.	Petty expenses	3 35	
Pritchard-Andrews Co., Ltd.	Stamps repaired	44 98	
Collector of Customs	Duty on goods	177 36	
Canadian Consolidated Rubber Co., Ltd	Rubber tubing, etc	183 06	
The Shaffer & Buckenberg Mfg., Co	12 Gauges	72 50	
Parkinson & W. B. Cowan, Ltd.	Test holders complete for Ottawa & Vancouver Laboratories	1,080 84	
Lymans, Ltd	11 doz. Accts of Cad. books, etc	19 69	
The Standard Meter Co., Ltd.	1 Meter Power Bell Complete for Toronto office	68 50	
A. Wright Co., Ltd	Gas apparatus	245 56	
American Bank Note Co	Stamps supplied	25 00	
Equitable Meter Co.	1 Meter outfit	50 25	
Graydon & Graydon	Law costs Rex vs City Gas of London	20 00	
			1,991 09
	Printing	4,458 04	
	Stationery	1,098 90	5,556 94
			7,548 03

APPENDIX B.

No. 8.—Details of General Electric Light Expenditures for the year ended March 31, 1916---*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	General Electric Light Contingencies.	$ cts.	$ cts.
Hughes, P. A.	Petty expenses	3 25	
Smith, Mrs. I.	Cleaning Electrical Laboratory.	314 00	
Phillips Elec. Works, Ltd.	Covered wire, &c.	20 15	
The Synchronome Co., Ltd.	1 Regulator, &c.	598 75	
Nesbitt, A. H.	Commission on storage	35 19	
Edison Storage Battery Co.	Sundry	262 60	
Collector of Customs	Duty on goods	1,432 14	
Sterling Rubber Co., Ltd	Rubber Gloves &c	60 00	
Alex Wright, Co., Ltd.	Electrical apparatus	1,155 37	
Pringle & Co., R. H.	" "	49 10	
Superintendent of Documents. Washington	3 Compte. sets research works, &c.	45 25	
Lymans, Ltd.	Electrical supplies	91 45	
Canadian Consolidated Rubber Co	Rubber tubing.	61 26	
Canadian Westinghouse Co., Ltd.	Electrical apparatus	74 44	
Crompton Co., Ltd.	" "	1,698 29	
O'Leary Co., M. J.	Storage battery, &c.	735 40	
Standard Underground Cable Co., Ltd.	Copper cable	75 16	
The States Co., Hartford	Electrical apparatus	1,535 05	
Canadian General Electric Co., Ltd.	1 Fan motor	704 10	
Kelwin Bottomley & Baird, Ltd.	Electrical apparatus	298 42	
H. Tinsley & Co.	Oscillograph and accessories	1,455 79	
Weston Elec. Instrument Co	Electrical apparatus	828 46	
Thomas Meadows & Co.	" "	21 78	
Ottawa Electric Co	Electric current for the year	250 00	
Bank of Montreal	Draft on London, Eng	141 07	
The Topley Co.	Oscillograph and accessories	889 20	
The Lawson & Sons Ltd	Electrical apparatus	50 00	
Canada Wire & Cable Co.	Duplex wire	16 22	
American Bank Note Co	Stamps supplied	30 00	
Biddle J. G.	4 Rheostats	36 16	
Northern Electric Co.	Telephone apparatus	36 14	
Tweedies McGillivray Barron & Oldham	Law cost Rex *vs* J. E. Maberley	104 10	
Watts & Son, Ltd., E. R	3 Sets Testing apparatus	235 00	
Seaton, T. J.	Repairing 4 timers	23 00	
Kyle's Cabinet Works.	24 birch boxes	126 00	
			13,512 29
	Stationery	141 40	
	Printing	98 75	240 15
			13,753 44

APPENDIX B.

No. 8.—Details of Gas and Electricity Expenditures for the year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Amounts paid.	Total amounts paid.
	Gas & Electric Light Provisional Allowance.	$ cts.	$ cts.
R. Hamilton—Winnipeg	To pay R. Hamilton	99 96	
"	" F. C. Babington	124 92	
"	" G. F. Pankurst	124 92	
"	" W. A. Ross	150 00	
"	" Henry Hood	150 00	
"	" Louis Weber	124 92	774 72
W. P. Kyle—Calgary	" W. P. Kyle	100 00	
"	" B. B. Jones	72 87	
"	" R. C. Jackson	6 04	
"	" A. J. Cantin	125 00	303 91
Jas. Scott—Vancouver	" Jas. Scott	99 96	
"	" W. A. Templeton	124 92	
"	" O. S. Power	124 92	
"	" G. T. Scoular	124 92	
"	" J. J. McNiven	124 92	
"	" J. W. Costello	99 96	699 60
F. Dresser—Victoria	" F. Dresser	124 92	124 92
W. Hunter—Regina	" W. M. Hunter	124 60	
"	" S. N. Hart	124 60	249 20
	Total Provisional Allowance		2,152 35

APPENDIX B—*Continued.*

No. 8.—Details of Electric Light Inspection Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for guarantee.	Amounts paid.	Total amounts paid.
	Belleville.	$ cts.	$ cts.	$ cts.
Fraser, H.	Salary as Inspector for the year	7 20	1,092 72	
Diamond, F. D.	" Asst. Inspector for the year	1 80	298 20	
Cruthers, W. M.	" " " from Sept. 20, 1915, to March 31, 1916	95	529 58	
	Salaries	9 95	1,920 50	
	Contingencies		416 28	2,336 78
	Hamilton.			
Lutz, H.	Contingencies		539 80	539 80
	London.			
Nash, A. F.	Contingencies		754 55	754 55
	Ottawa.			
Morrison, A. C.	Contingencies		554 90	554 90
	Toronto.			
Stiver, J. L.	Contingencies		897 64	897 64
	Fort William.			
Little, E	Salary as Inspector for the year	3 60	1,396 32	
	Contingencies		280 77	1,677 09
	Montreal.			
Aubin, A	Contingencies		1,950 72	1,950 72
	Quebec.			
Bèland, F.X.W.E.	Contingencies		3,356 99	3,356 99
	Sherbrooke.			
Simpson, A. F.	Contingencies		184 11	184 11
	St. Hyacinthe.			
Provost, I. E.	Salary as Inspector for the year	3 30	546 70	
	Contingencies		279 05	825 75
	Three Rivers.			
Olivier, A.	Salary as Inspector for the year	3 60	496 32	
	Contingencies		384 75	881 07
	St. John.			
Wilson, John E.	Contingencies		303 61	303 61
	Halifax.			
Toale, John.	Contingencies		1,365 27	1,365 27

APPENDIX B—*Continued.*

No. 8.—Details of Electric Light Inspection Expenditures for the Year ended March 31, 1916—*Continued.*

To whom paid.	Service.	Deductions for guarantee.	Amounts paid.	Total amounts paid.
	Charlottetown.	$ cts.	$ cts.	$ cts.
Bell, J. H.	Contingencies		124 77	124 77
	Winnipeg.			
Hamilton, R.	Contingencies		1,577 66	1,577 66
	Calgary.			
Kylie, W. P.	Salary as Inspector for the year	3 60	1,496 40	
Jones, B. B.	Asst. Inspector from April 1, 1915 to Nov. 1, 1915; Transferred to London	1 05	698 95	
	Salaries	4 65	2,195 35	
	Contingencies		481 09	2,676 44
	Regina.			
Hunter, W. M.	Salary as Inspector for the year	3 60	1,296 36	
Hart, S. N.	" Asst. Inspector for the year	1 80	1,198 20	
	Salaries	5 40	2,494 56	
	Contingencies		1,862 75	4,357 31

APPENDIX B—*Continued.*

No. 8.—Details of Electric Light Inspection Expenditures for the Year ended March 31, 1916—*Concluded.*

To whom paid.	Service.	Deductions for			Amounts paid.	Total amounts paid.
		Superannuation.	Retirement.	Guarantee.		
	Vancouver.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Stott, Jas.	Salary as Inspector for the year			3 60	1,796 40	
Templeton, W. A.	" Asst. Inspector for the year.			1 80	1,246 32	
Power, O. S	" " "			1 80	1,148 16	
Schuler, G. T	" " "			1 80	1,198 20	
McNiven, J. J	" " "			1 80	998 16	
Wolfenden, Wm.	" " "	9 96		1 80	188 16	
	Salaries	9 96		14 40	6,575 40	
	Contingencies				1,465 62	
						8,041 02
	Victoria.					
Dresser, F	Contingencies				255 58	
						255 58
	Edmonton.					
Cantin A. J	Salary as Inspector for the year.			3 60	1,296 36	
	Contingencies				419 45	
						1,715 81
	Dawson.					
Stingle, J. W.	Salary as Inspector for the year.			3 60	496 32	
						496 32
Kinsman, E. A	" " "			1 80	1,423 20	1,423 20
	Eastern Dominion Inspection.					
Lambe, A. B.	Contingencies				87 55	
						87 55
	Western Dominion Inspector.					
Higman, O., jr.	Salary as Inspector for the year.			3 60	2,596 32	
	Contingencies				1,336 05	
						3,932 37
	Chief Engineer.					
Higman, O., sr.	Contingencies				376 02	
						376 02
	Sudbury.					
Code, A. G.	Salary as Inspector for the year.			1 39	384 70	
	Contingencies				348 60	
						733 30
	Total	9 96		58 89		

APPENDIX B—*Continued.*

STATEMENT No. 9.—Showing the Amount Paid during the Year 1915-16 to different Companies for guaranteeing Outside Officers of the Inland Revenue Department.

—	Amounts paid.	
	$ cts.	
Railway Passengers Assurance Co.. ...	234 42	
The Imperial Guarantee and Accident Insurance Co., of Canada..	533 52	
The Dominion of Canada Guarantee and Accident Insurance Co.....	436 98	
The Guarantee Co., of North America	531 12	
London Guarantee and Accident Co..	185 90	
The Employers Liability Assurance Corporation Ltd ...	506 20	
Total .		2,428 14

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX B—*Continued.*

No. 10.—Statement showing the number of parties under Licenses for the Year 1915-16.

Divisions.	Distillers.	Brewers and Maltsters.	Brewers.	Maltsters.	Tobacco Manufacturers.	Cigar Manufacturers.	Bonded Warehouses.	Manufacturers in Bond (Vinegar).	Manufacturers in Bond (Liniment)	Chemical Stills.	Manufacturers of Stills.	Acetic Acid Manufacturers.	Mfrs. of Pharmaceutical Preps.	Manufacturers of Perfumes.	Petroleum Refiners.	Wood Alcohol Manufacturers.	Manufacturers in Bond (Sundries).	Malt Vinegar Brewers.
Belleville, (Distillery at Thurlow Tp.) H. Corby	1	1	..	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..
Brantford	..	1	..	..	..	5	2	1	..	..	..	..	..	..	..	..	..	..
Guelph, (Distillery at Waterloo) Jos. E. Seagram	1	3	4	2	..	7	3	..	..	..	..	..	..	..	..	..	..	..
Hamilton, Hamilton Distillery Co., Ltd.	1	1	1	1	1	10	3	2	1	4	..	1	..	..	..	..	2	..
Kingston	..	..	2	..	..	3	4	1	..	1	..	..	1	..	..	..	..	..
London	..	2	2	..	..	34	5	..	..	3	..	..	..	..	3	..	..	..
Ottawa	..	..	2	..	..	1	6	..	..	3	..	..	..	..	..	1	..	..
Owen Sound	..	..	4	1	..	2	..	1	..	..	..	..	..	..	..	1	..	..
Perth-Spaldings Stewart-John S. McLaren Estate O'Brien Munitions, Ltd	3	.	1	..	.	2	10	..	..	2	..	..	1	1	..	..	2	..
Peterborough	..	..	1	1	.	2	1	..	..	1	..	..	..	..	..	1	1	..
Port Arthur	..	..	3	..	..	1	8	..	..	..	..	..	..	..	..	..	..	..
Prescott, J. P. Wiser & Sons, Ltd	1	..	3	1	..	2	1	..	..	..	..	..	..	..	..	..	1	..
St. Catharines	..	..	2	.	.	9	1	..	..	1	..	..	..	..	..	..	..	..
Stratford	..	..	2	..	..	4	2	..	..	..	..	..	..	1	..	..	..	..
Toronto, Gooderham & Worts, Ltd.—The General Distillery Co., L d	2	3	7	..	3	23	13	2	..	29	3	..	2	5	2	4	11	1
Windsor, Hiram Walker & Sons, Ltd.	1	.	2	1	3	7	4	1	..	4	..	.	5	2	..	..	1	..
Ontario	10	11	36	7	7	113	66	8	1	48	3	1	9	9	5	7	18	1
Jolliette, The Melcher Gin & Spirits Distillery Co., Ltd	1	.	..	..	9	7	3	..	..	1	..	..	..	..	..	..	..	..
Montreal, The Montreal Products Co., Ltd, Canadian Explosions Ltd	2	3	3	1	38	44	20	2	..	21	.	1	5	6	.	2	4	.
Quebec	..	1	1	..	6	2	15	1	..	..	..	..	..	..	..	..	..	..
St. Hyacinthe, The St. Hyacinthe Distillery Co., Ltd.	1	..	..	..	5	9	10	..	..	..	..	..	..	1	..	..	1	..
Sherbrooke	..	..	1	..	1	7	5	..	..	..	..	..	..	..	..	2	1	..
Three Rivers	..	..	1	..	4	4	5	..	..	..	..	..	..	..	..	..	..	..
Quebec	4	4	6	1	63	73	58	3	..	22	..	1	5	7	..	4	6	..
St. John, New Brunswick	..	..	2	..	..	2	7	2	..	1	..	..	..	..	..	..	..	..
Halifax	..	..	3	..	.	3	6	..	.	..	..	..	..	..	..	..	..	..
Pictou	.	..	.	..	1	1	5	..	..	1	.	..	..	..	..	..	..	..
Nova Scotia	..	..	3	..	1	4	11	..	..	1	..	..	..	..	..	..	..	..
Charlottetown, Prince Edward Island	..	.	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..
Winnipeg, Man	..	2	6	2	2	12	26	2	..	11	.	..	3	2	..	..	2	.
Moosejaw, Sask	..	.	4	..	..	4	17	.		1	..	..	..	..	..	..	..	..
Calgary, Alta	..	2	5	1	3	8	24	3	..	10	..	..	..	1	..	..	..	..
Vancouver	1		19	..	2	17	23	2	..	13	..	..	..	..	1	..	..	.
Victoria	.	1	6	..	..	11	7	..	..	3	..	..	..	..	..	..	..	..
British Columbia	1	1	25	..	2	28	30	2	..	16	.	.	..	..	1	.	..	..
Dawson, Yukon Territory	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..
Grand Total	15	20	88	11	82	244	246	20	1	110	3	2	17	19	6	11	26	1

INLAND REVENUE DEPARTMENT.
OTTAWA, July 1, 1916.

J. U. VINCENN,
Deputy Minister.

APPENDIX B—*Continued.*

No. 11.—Summary statement showing the number of permanent officers employed in the different services of the Inland Revenue Department during the year ended March 31, 1916.

DEPARTMENT OF OTTAWA.

—	Number of Officers employed.
Inside service	80

EXCISE (Outside Service).

Divisions.	Provinces.	Number of Officers employed.
Belleville	Ontario	11
Brantford	"	6
Guelph	"	15
Hamilton	"	19
Kingston	"	7
London	"	21
Ottawa	"	9
Owen Sound	"	5
Perth	"	13
Peterborough	"	4
Port Arthur	"	4
Prescott	"	10
St. Catharines	"	5
Stratford	"	6
Toronto	"	38
Windsor	"	26
Joliette	Quebec	9
Montreal	"	30
Quebec	"	15
St. Hyacinthe	"	10
Sherbrooke	"	6
Three Rivers	"	1
St. Johns	New Brunswick	11
Halifax	Nova Scotia	10
Pictou	"	3
Charlottetown	Prince Edward Island	2
Winnipeg	Manitoba	16
Calgary	Alberta	6
Moosejaw	Saskatchewan	6
Vancouver	British Columbia	22
Victoria	"	7
Dawson	Yukon Territory	1

District Inspectors.

District Inspector and Inspector of Bonded Factories	Ontario	1
District Inspectors	"	2
" "	Quebec	2
" "	New Brunswick	1
Dominion District Inspector of Malt Houses and Breweries District Inspector	Dominion of Canada	1
District Inspector	Manitoba	1
" "	Alberta	1
	British Columbia	1
Inspector of Distilleries	Dominion	1
Inspector of Tobacco Factories		1
	Grand total for excise	[illegible]

APPENDIX B—*Continued.*

No. 11.—Summary statement showing the number of permanent officers—*Con.*

WEIGHTS AND MEASURES. (Outside Service.)

Districts.	Provinces.	Number of Officers employed.
Belleville	Ontario	4
Hamilton	"	8
Kingston	"	3
London	"	7
Ottawa	"	8
Toronto	"	8
Montreal	Quebec	11
Quebec	"	11
St. Hyacinthe	"	3
Sherbrooke	"	3
Three Rivers	"	4
St. John	New Brunswick	5
Halifax	Nova Scotia	3
Pictou	"	3
Charlottetown	Prince Edward Island	2
Winnipeg	Manitoba	9
Calgary	Alberta	4
Saskatoon	Saskatchewan	4
Saskatchewan	"	1
Nelson	British Columbia	3
Dawson	Yukon Territory	1
	Grand total for Weights and Measures	105

GAS. (Outside Service.)

Districts.	Provinces.	Number of Officers employed.
Belleville	Ontario	4
Hamilton	"	5
London	"	8
Ottawa	"	5
Toronto	"	13
Montreal	Quebec	6
Quebec	"	1
Sherbrooke	"	2
St. Hyacinthe	"	1
Fredericton and St. John	New Brunswick	3
Halifax	Nova Scotia	3
Charlottetown	Prince Edward Island	1
Winnipeg	Manitoba	6
Victoria	"	2
	Grand total for gas	60

SESSIONAL PAPER No. 12

APPENDIX B—*Continued.*

No. 11.—Summary statement showing the number of permanent officers—*Con.*

ELECTRIC LIGHT (Outside service.)

Districts.	Provinces.	Number of Officers employed.
Belleville	Ontario	1
Fort William	"	1
Sudbury	"	1
London	"	
Ottawa	"	1
Toronto	"	
"	"	
Montreal	Quebec	
Quebec	"	
Sherbrooke	"	
St. Hyacinthe	"	
Three Rivers	"	1
St. John	New Brunswick	
Halifax		
Charlottetown		
Winnipeg		
Calgary	Alberta	2
Edmonton	"	1
Regina	Saskatchewan	2
Vancouver	British Columbia	6
Dawson	Yukon Territory	1
Dominion		
Western Dominion		1
	Grand total for electric	18

ADULTERATION OF FOOD (Outside Service.)

Residences.	Provinces.	Number of Officers employed.
Kingston	Ontario	1
London	"	1
Toronto and Hamilton	"	1
Montreal	Quebec	2
Quebec	"	1
St. Hyacinthe	"	1
St. John	New Brunswick	1
Halifax	Nova Scotia	1
Charlottetown	Prince Edward Island	1
Sydney	Cape Breton	1
Calgary	Alberta	1
Vancouver	British Columbia	1
Victoria	"	1
Winnipeg	Manitoba	1
Rocky Mountains		1
		16

APPENDIX B—*Concluded.*

No. 11.—Summary statement showing the number of Permanent Officers—*Concluded.*

PREVENTIVE SERVICE.

Divisions.	Provinces.	Number of Officers employed.
Ottawa	Ontario	1
Toronto	"	1
St. John	New Brunswick	1
	Total	3

RECAPITULATION.

Departmental Staff, Ottawa	80
Excise, (outside service)	359
Excise, Weights and Measures and Electric Light	1
Excise and Gas	12
Excise and Food	13
Excise and Electric Light	1
Weights and Measures	101
Weights and Measures and Food	2
Weights and Measures and Gas	1
Weights and Measures and Electric Light	1
Gas	59
Gas and Food	1
Electric Light	15
Preventive Service	3
Grand total of employees	649

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916

J. U. VINCENT,
Deputy Minister.

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REPORT, RETURNS, AND STATISTICS

OF THE

INLAND REVENUES

OF THE

DOMINION OF CANADA

FOR THE FISCAL YEAR ENDED MARCH 31

1916

PART II

WEIGHTS AND MEASURES, GAS AND ELECTRICITY

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY J. de L. TACHÉ,
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1918

[No. 13—1917.]

REPORT

OF THE

DEPUTY MINISTER OF INLAND REVENUE

OF THE

INSPECTION OF WEIGHTS AND MEASURES, GAS AND ELECTRICITY.

To the Honourable
The Minister of Inland Revenue.

SIR,—I have the honour to submit my annual report on the inspection of weights and measures, gas and electricity, with the usual statements in connection therewith for the fiscal year ended March 31, 1916.

1. The total revenue collected during the year for the inspection of weights and measures was $112,136.81 as against $106,111.20 collected during the twelve months ended March 31, 1915.

2. The total expenditure was $181,113.86 as against $164,604.93 expended during the year ended March 31, 1915.

3. Appendix "A" gives a summary statement of the receipts and expenditures at each inspection division.

4. In Appendices "B", "C", and "D" will be found a detailed statement of weights, measures and weighing machines presented for verification, verified and rejected during the year. The number of all descriptions may be summarily stated as follows:—

	Presented	Verified	Rejected	Percentage of Rejections
Weights	64,0[illegible]	63,[illegible]83	188	[illegible]93
Measures of capacity	145,225	144,780	121	281
" length	9,154	9,053	101	1 103
Balances, equal arms	11,[illegible]24	11,[illegible]4	201	1 [illegible]11
" steelyards	7,479	7,342	137	1 883
" platform scales	53,146	50,[illegible]81	[illegible]823	1 546
" computing, automatic, etc.	18,698	18,691	107	1 582

The revenue collected represents 61.9 per cent of the expenditure, as against 65 per cent last year.

The increase in expenditure is mainly due to the following causes, increase of work done, increased travelling, increase of staff, and increase in the capacity of scales. The latter, together with the introduction of labour saving, automatic weighing machines, necessarily follows commercial development. As a result, the demand for ability and technical knowledge on the part of inspecting officers becomes yearly more insistent, whilst the increased capacity of scales greatly multiplies the physical exertion, and the cost and difficulty of transporting the larger number of government test weights necessary to make reliable inspections. To-day the service has in use some (7,000) seven thousand 50 pounds test weights.

To meet the very important work of grain elevator scale inspection in the West, the two divisions of Saskatchewan and Alberta have each been divided into two. The division of Saskatoon remains for the northern half of Saskatchewan, the southern half being constituted the new division of Regina. Likewise Calgary division remains for the southern half of Alberta, the northern half being constituted the new division of Edmonton.

The percentage of rejected weighing machines in general is still very low, being only 2·6 per cent. In the important work of grain elevator scales, however, the percentage is 10·75 per cent, a considerable improvement over past years. Both percentages would undoubtedly be higher, but for the fact that officers adjust incorrect scales, etc., whenever they can.

Important activities have also been directed to dairy cans and milk bottles, all importations of both being inspected for accuracy of contents before distribution or use is permitted. This keeps out all short American wine-measure bottles and the American 40-quart can, the latter being one Dominion quart larger, but indistinguishable from the regular Dominion 8 gallon or 32 quart can.

In further connection with dairy work, the Standards Branch during the year has tested 23,989 metric babcock milk cream test bottles and pipettes, of which 23,405 have been verified and stamped, producing a revenue of $1,170.26.

During the year 186 seizures of incorrect and improper weights and measures have been made, most of which were confiscated without legal proceedings.

Only twenty-one prosecutions took place, convictions being secured in every case, fines and costs to the extent of $205.60 being inflicted.

With the exception of one case of obstruction, and two cases of using false measures, all the prosecutions were for the use of an unstamped scale or measure.

THE METRIC SYSTEM.

The question of the compulsory adoption of the metric system has been given increased importance by the war.

The system has long been permissive and legal for trade in Canada, but outside scientific work and the Babcock butter-fat test, as practised by the dairy industry, it is not much used.

The British Imperial Council of Commerce has recently passed a resolution urging the adoption of a uniform decimal system of weights and measures throughout the Empire. At the same time there is a Bill before the United States Congress to make the metric system compulsory in 1924.

The department is continuing its educational work by the distribution of an explanatory pamphlet and chart on the metric system, thirty-three of the latter being distributed to schools and colleges in the past year.

To fulfil Canadian obligations as a Contracting State to the International Metric Convention, the Honourable the Minister of Inland Revenue was empowered by Act of Parliament in the session of 1914 to procure copies of the International Metre and Kilogram as the Primary Metric Standards of the Dominion. The war, however, has temporarily suspended this activity.

DOMINION STANDARDS.

I have also to report that with the recent destruction of Parliament buildings by fire was destroyed the two sets of Primary Dominion Standards of Weight and Measure, marked respectively "B" and "C", and deposited in 1875 in the keeping of the Honourable the Speaker of the House of Commons and of the Senate, respectively.

These standards are described in schedule 1, Part 11, of the Weights and Measures Act, chap. 52 R.S. 1906, and must be restored as required by section 8 thereof.

INSPECTION OF GAS.

The total revenue collected during the twelve months ended March 31, 1916, for the inspection of gas and gas meters was $46,034.80, as compared with $56,841.30 collected during the year ended March 31, 1915. The total expenses were $66,255.58, as against $62,188.40 expended during the year ended March 31, 1915.

Since making my last report changes of a somewhat radical nature have been introduced in the Gas Inspection service. Prior to July 1, 1915, the gas companies were required to produce gas having an illuminating power of 16 candles. Owing to the changes that have taken place in the methods of using gas, this standard had become obsolete. Less than 5 per cent of the gas manufactured was used in naked flame burners for lighting purposes; the remainder, or over 95 per cent being used in appliances which depended on the heating value rather than the illuminating power of the gas. This being the case, obviously the only course for the department to pursue was to substitute a calorific standard in place of the candle-power standard. This change was made by Order in Council, dated June 26, 1915, and the following regulations, in respect of manufactured gas, became effective from the 1st of July, 1915:—

REGULATIONS.

These regulations are to be construed as subject in all respects to the provisions of the Act, and the several words, terms and expressions to which by the Act meanings are assigned shall have herein the same respective meanings.

1. British Thermal Unit (B.T.U.) means the quantity of heat required to raise the temperature of one pound avoirdupois of water from 60 to 61 degrees Fahrenheit.

2. There shall be provided and maintained in proper working order by the department at each departmental testing place suitable apparatus for testing the

calorific power of manufactured gas supplied at such testing place, and such apparatus and the method of making the test shall be such as shall from time to time be determined by the minister

3. The following provisions shall apply with respect to the testings of calorific power made with the apparatus and at the test places provided in accordance with the requirements of the preceding section:—

(*a*) Any inspector of gas appointed under the Act may by means of the apparatus provided as aforesaid test at the prescribed testing place at any reasonable hour the calorific power of the gas supplied at such testing place, but not more than one testing for calorific power shall be made on any one day except in the event mentioned in subsection (*f*) of this section.

(*b*) The undertaker may if he so desires on any occasion of the testing of the gas under the provisions of this section be present, either in person or represented by some officer whom he may appoint; such representative, however, shall not interfere with the testing.

(*c*) The Calorimeter shall be so used as to yield the total heat which shall be developed by the complete combustion in moist (saturated) air of moist (saturated) gas and the products of combustion shall leave the calorimeter at approximately the temperature of the inlet water.

(*d*) Subject to the provisions of the next preceding subsection the testing shall be made in the manner and under the conditions for the time being prescribed by the minister.

(*e*) The result obtained by means of such testing shall be expressed in terms of British Thermal Units per cubic foot of gas and shall be corrected for a temperature of 60 degrees Fahrenheit and a pressure balanced by a column of 30 inches of mercury at the same temperature. The corrected result shall be the calorific power of the gas determined by the testing.

(*f*) In the event of the calorific power, on any testing, being found to be below the standard calorific power, the undertaker shall be immediately notified in writing and a second testing shall be made on the same day but at an interval of not less than one hour from the time of serving the notice on the undertaker, and the average of the two testings shall be the calorific power of the gas on that day.

(*g*) Any party may, at any reasonable time, after depositing the fee, demand a test of the calorific power of the gas supply. In the event of the calorific power determined by the test being below the standard, the cost of the test shall be paid by the undertaker, if at or above the standard, by the party demanding the test.

(*h*) The inspector shall, not later than the day following that on which any testing has been made under this section, make and cause to be delivered to the undertaker a report of the results of his testing, and such report shall be received as prima facie evidence of the facts therein contained.

THE STANDARD OF CALORIFIC POWER.

4. The standard calorific power of the gas supplied by the undertaker at the prescribed testing place shall be five hundred and twenty British Thermal Units per cubic foot of saturated gas when burned in saturated air and the volume of gas corrected for a temperature of 60 degrees Fahrenheit and a pressure balanced by a column of 30 inches of mercury at the same temperature.

Provided that the undertaker shall not be liable for more than one penalty in respect of a deficiency of calorific power of the gas at any testing place on any one day.

PENALTIES FOR DEFICIENCY OF CALORIFIC POWER.

5. If on any day the calorific power of the gas tested in accordance with the provisions of these regulations is below the standard calorific power prescribed, the undertaker shall be liable to the following penalties:—

(*a*) Companies having over ten thousand (10,000) meters, eighty dollars for the first offence and double this penalty for each subsequent offence.

(*b*) Companies having five thousand and one to ten thousand (5,001 to 10,000) meters, sixty dollars for the first offence and double this penalty for every subsequent offence.

(*c*) Companies having two thousand and one to five thousand (2,001 to 5,000) meters, forty dollars for the first offence, and double this penalty for every subsequent offence.

(*d*) Companies having one thousand and one to two thousand (1,001 to 2,000) meters, twenty dollars for the first offence and double this penalty for every subsequent offence.

(*e*) Companies having one thousand (1,000) meters and under, ten dollars for the first offence and double this penalty for every subsequent offence.

SAVING CLAUSE AS TO PENALTIES.

6. Notwithstanding anything contained in these regulations, no penalty shall be incurred by the undertaker for any deficiency in calorific power in the gas tested in accordance with the provisions herein contained in respect of which the inspector reports, or it is proved, that such deficiency was produced by any circumstance beyond the control of the undertaker; provided that want of sufficient funds shall not be held to be a circumstance beyond the control of the undertaker.

PROCEDURE.

7. All penalties imposed under the authority of these regulations shall be recoverable on summary conviction in accordance with the provisions of sections 62, 63 and 65 of the Gas Inspection Act, Chapter 87, R.S.

8. These regulations shall come into force and be operative from and after the first day of July, 1915.

9. All previous Orders in Council and regulations relating to the testing of the illuminating power of gas and in respect of sulphur and ammonia tests are hereby repealed.

A statement of average calorific values and of purity tests for the nine months ending March 31, 1916 will be found in appendix "F."

CARBON MONOXIDE IN ILLUMINATING GAS.

A communication has been received from the Royal Society of Canada in relation to the poisonous element of carbon monoxide in illuminating gas, and requesting that quantitative tests be made and published by the department with the view to warning the public as to the poisonous nature of the gas containing the element named. The correspondence follows:—

THE ROYAL SOCIETY OF CANADA,
OTTAWA, November 23, 1915.

DEAR SIR,—At the annual meeting of the Royal Society of Canada, held in Ottawa in May last, an important report was submitted containing information as to the dangers to life arising from the presence of carbon monoxide in ordinary illuminating gas.

I am sending herewith a copy of this report, and I am asked to direct your attention to recommendation No. 2 on page 6, which reads as follows:—

> "That the Department of Inland Revenue be requested to instruct their gas inspectors to determine the percentage of carbon monoxide in illuminating gas at the same time as they make the examination for sulphuretted compounds."

I shall be pleased to know if your department will undertake to issue the instructions to inspectors referred to therein.

Yours very truly,

DUNCAN E. SCOTT,
Honorary Secretary.

JOSEPH ULRIC VINCENT, Esq.,
Deputy Minister of Inland Revenue,
Ottawa, Ont.

REPORT OF THE COMMITTEE APPOINTED IN 1914 TO OBTAIN FULL INFORMATION AS TO THE DANGERS ARISING FROM THE PRESENCE OF CARBON MONOXIDE IN ORDINARY ILLUMINATING GAS.

The report of the committee appointed in 1914 to obtain full information as to the dangers to life arising from the presence of carbon monoxide in ordinary illuminating gas was presented for Dr. Girdwood, chairman, by Dr. Ruttan. The report was as follows:—

Mr. President and Fellows of The Royal Society:

GENTLEMEN,—At the last meeting of this society held in Montreal, in the month of May last, you did us the honour of appointing us a committee for the purpose of collecting information upon the use of water gas in illuminating gas. We thank you for that honour, and now have pleasure in submitting our report as follows:—

The conditions of war in Europe have so interfered with postal arrangements that we have been unable to obtain any information from the continent of Europe, and the information we have been able to obtain has been from the United Kingdom, the United States, and Canada.

Throughout Great Britain, in the early part of the last century, coal gas was introduced as a means for lighting the houses and streets. The gas originally used was made by the distillation of soft coal, of which material an ample supply was obtainable.

Ordinary coal gas thus obtained consists chiefly of lighter hydrocarbons with hydrogen, and carries also about 6 per cent of carbon monoxide and gaseous sulphur compounds.

These sulphur compounds must be almost completely removed from the gas before it is distributed.

True coal gas, unlike water gas, has a very distinct odour, and hence its presence even in small quantity in a room can be immediately detected. It is not toxic in the true sense; but in large quantity it suffocates by replacing the oxygen of the air in a room. Unlike the victims of poisoning by water gas or illuminating gas carrying a high percentage of carbon monoxide, persons rendered unconscious by true coal gas can usually be quickly and completely restored to consciousness through artificial respiration, when removed to pure air.

Later on, water gas was introduced as an illuminant, and was adopted largely in the United States in preference to soft-coal gas.

Most gas companies in the United Kingdom have a coal-gas plant and an auxiliary water-gas plant for use when the coal supply is stopped by reason of strikes among the miners.

Water gas is manufactured by throwing steam into a retort full of red-hot coal or carbon, by which the steam is decomposed into hydrogen, the oxygen of the water combining with the carbon of the coal to form carbon monoxide. This gas has heating power, but little illuminating quality, and therefore it is necessary to carburet it, which is done by the addition of a sufficient quantity of carburetting material of the benzine series.

This water gas is highly poisonous; it contains, when carburetted, about 40 per cent carbon monoxide, and if it escapes unburnt and is taken into the lungs the actively poisonous carbon monoxide combines with the haemoglobin of the blood, with which it remains firmly fixed, and prevents the absorption of atmospheric oxygen, thus rapidly causing asphyxiation. It is this carbon monoxide which is the poisonous element in the deadly after-damp which occurs in coal mine explosions.

An excellent account of the effects produced by carbon monoxide is given by Dr. Ivor J. Davies in an article in the *British Medical Journal* of July 11, 1914, wherein he described the effects of poisoning by carbon monoxide in the terrible explosion in the South Wales colliery, Senghenydd mine, in which 440 men were killed. He treated thirty-six cases of poisoning, eighteen of which recovered; the others died.

Numerous evidences of the poisonous character of this gas are to be found in newspaper reports of firemen being overcome by smoke.

At the present day, water gas is also supplied for cooking purposes. When used for illuminating purposes it is burned more generally in burners carrying mantles of

earthy material, rather than in open burners. These mantles become incandescent by the heat of the burning gas, so that the heat qualities are of more importance than candle power, and we are given to understand that the Government is proposing to abandon the standard of candle power and substitute the calorific power as a standard.

In the houses of the poorer classes, where the gas cooking stove is very often in the sleeping room, the flame may be extinguished by a draught from an open window, or by various other causes; this is a constant menace to human life.

The danger of using this water gas is shown by a case which occurred in the city by inhaling the gas which was escaping from two unlighted burners. A man going into the house found the place full of gas fumes, and the people insensible; assistance was sent for, consciousness restored and the people recovered.

The danger of using this gas is also shown in a newspaper clipping sent us by Dr. Mills from London, England, wherein the death of a man, his wife, and two children is recorded. Their deaths were due to an escape of gas from the main in the street through the ground into the basement of the house in which they lived.

We have found the records in the registry offices, both in Great Britain and in Canada, almost valueless for giving us the number of deaths due to this gas. In Montreal we have been able to obtain the following:—

DEATHS FROM POISONING BY GAS IN MONTREAL.

Reported from Health Department.. .. .. by Dr. C. B. Ward.
" Morgue.. .. .. by Dr. Mactaggart.
" Royal Victoria Hospital.. .. .. .. by Dr. H. B. Cushing.
" Notre Dame Hospital.. .. .. by Dr. Hingston.
" Hotel Dieu Hospital.. .. .. by Dr. Hingston.
" Montreal General Hospital.. .. .. by Dr. Bourne.

Year.	Accident.	Suicide.	Total.
1907	3		
1908	10		
1909	11		
1910	28		
1911	11	1	
1912	19	3	
1913	8	2	
1914	9		
	99	6	105

Reported from Western Hospital, Montreal—by Dr. R. R. Scott.
1914—5 cases C.O. poisoning, all recovered.
1915—(so far) One case,—died from accompanying burns.

DEATHS FROM POISONING BY GAS IN THE CITY OF NEW YORK.

Reported by Dr. Wm. H. Guilfoy, Department of Health.

Year.	Accident.	Suicide.	Total.
1909	244	319	
1910	257	274	
1911	282	256	
1912	312	311	
1913	259	328	
	1,354	1,488	2,842

SESSIONAL PAPER No. 13

Report of W. T. Sedgwick and F. Schneider, jr., of Institute of Technology, Boston, of deaths in the state of Massachusetts from gas, increasing in accordance with the increased use of C.O. (Water-gas).

Year.	Percentage of Water-gas in Total Gas.	Accidental Deaths.	Suicidal Deaths.	Total.
1886-7	1.01	5	2	7
1888	1.56	7	1	8
1889	2.42	2	2	4
1890	6.34	5	2	7
1891	22.20	18	1	19
1892	36.60	9	12	21
1893	40.80	7	9	16
1894	55.00	14	15	29
1895	61.00	28	17	45
1896	62.00	20	13	33
1897	65.40	47	16	63
1898	64.60	48	29	77
1899	63.80	35	35	70
1900	51.40	35	15	50
1901	32.30	11	26	37
1902	37.70	9	39	48
1903	38.40	47	30	77
1904	42.30	29	35	64
1905	41.30	41	23	74
1906	30.70	35	30	74
1907	44.70	41	51	92
1908	44.50	55	93	148
1909	48.60	66	102	168
				1 131

Deaths from Poisoning by Gas in San Francisco.

According to reports lately received from the Department of Public Health and Public Works, no records of death are available. The report of the Departmental Committee on Water-gas and other gases to the Houses of Parliament in London for 1899, page 118, shows that in San Francisco in a period of twenty-five years:—

Year.	Accident.	Suicide	Homicide	Total
1872-3 to 1896-7	233	136	6	375

From the principal cities of Canada we have not been able to obtain any records. There is a general complaint regarding the lack of registration returns in Great Britain and Canada on this subject, no reliable data being obtainable.

In the United States the same deplorable condition exists, with the exception of New York, the states of Massachusetts and Rhode Island. The information we have obtained from Boston is chiefly contained in a lecture delivered by Dr. Sedgwick before the Medical Society of New York. From that lecture we learn that during the last twenty years, in the state of Massachusetts, there has been an increase in the number of deaths from suffocation by illuminating gas from seven deaths per annum (in 1886-7) to 168 in 1909, and during that time water gas has been increasingly used. More than half of these 168 cases were due to suicide. There is no mention of any homicidal cases that we can find, except in San Francisco. As this poisonous gas is generally supplied and readily obtainable, there is danger of its increased use for homicidal purposes.

From these reports we can see how deaths have increased since the use of water gas, and how necessary it is to have some legal regulation as to its use in illuminating gas.

We would suggest that some more careful method of registration should be adopted, so that the actual cause of death and the number of deaths occurring through

out the country from this cause should be readily obtainable at least every year. We would also suggest that a daily record of the carbon monoxide contents of all gas supplies be taken by the gas inspector, and that the companies supplying this gas shall keep a record of the percentage of carbon monoxide gas supplied to the public daily.

We would advise the careful perusal of the report of the chemist of the London County Council on water gas in the London gas supply, and the report of the Departmental Committee in the British Parliament on the manufacture and use of water gas; also of the lecture by Professors Sedgwick and Schneider on the relation of illuminating gas to the public health, from the Sanitary Research Laboratorium, Mass., Institute of Technology, Boston.

We beg to make the following recommendations:—

1. Your committee desire to place on record their dissatisfaction with the vital statistics of the various provinces in regard to deaths from carbon monoxide poisoning. Your committee would therefore suggest that the secretary of the Royal Society be instructed to write to the registrars general of the different provinces, and request that, if possible, more accurate record be kept of deaths from gas poisoning by their division registrars.

2. That the Department of Inland Revenue be requested to instruct their gas inspectors to determine the percentage of carbon monoxide in illuminating gas at the same time as they make the examination for sulphuretted compounds.

We have found that on account of the war it has not been possible to obtain the European statistics; your committee therefore wishes to submit this report merely as a report of progress, and asks permission to continue its work for another year.

In conclusion we wish to return our sincere thanks to all those who have so kindly and promptly responded to our requests for information on this most important subject.

Appended is a list of the cities from which we have received information as to the use of carbon monoxide in their gas supplies. There are very few records to be had of deaths by asphyxiation from this gas, either accidental or suicidal, but there are several parliamentary papers and pamphlets, obtained from many sources, accompanying this report.

List of cities to the mayors of which we applied for information and received replies: Aberdeen, Birmingham, Boston, Bristol, Derby, Edinburgh, Glasgow, Leeds, Liverpool, London, Montreal, Newcastle, New York, Ottawa, Philadelphia, Quebec, San Francisco, Swansea, Toronto, Vancouver, Washington.

List of papers accompanying this report:—

Parliamentary Report of Water Gas Committee London County Council on Water Gas:—

Gas Undertakings return No. 137.
Gas Undertakings return No. 138.
British Medical Journal No. 2793.
Circular Bureau of Standards U.S.A.
Inland Revenue Canada Gas Inspection Act.
Report Department of Labour No. 36, 1914.

Haematology of Carbon Monoxide poisoning, Toronto.

Lecture by Professor Sedgwick and F. Schneider of Institute of Technology, Boston.

J. P. GIRDWOOD, *Chairman.*
R. F. RUTTAN,
JOHN J. MACKENZIE,
T. G. RODDICK.

OTTAWA, February 22, 1916.

MR. DUNCAN E. SCOTT,
Honorary Secretary, The Royal Society of Canada,
Ottawa, Ontario.

DEAR MR. SCOTT,—I beg to include herein a copy of a report from our Chief Engineer of Gas and Electricity, in reference to the matter on which I had the pleasure of a communication from you some time ago.

If there is anything further which I can do, I will be only too glad to communicate with you.

Yours very truly,

J. U. VINCENT,
Deputy Minister.

OTTAWA, February 21, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue,
Ottawa.

SIR,—Referring to the letter of the secretary of the Royal Society of Canada on the subject of carbon monoxide in fuel gases and the accompanying report of the society on this question; I beg to report as follows:—

With regard to the report itself there is nothing contained therein to which much objection can be taken. There has been from the beginning and will be to the end, carbon monoxide in fuel gases, varying in quantity from 10 to 30 per cent, according to the method of manufacture. With reference to the statistics and the number of deaths occasioned by the inhaling of such gases, I might suggest that the heading "accidental" be replaced by the word "ignorance" or "carelessness." Even if all the carbon monoxide were removed from the gas there would still remain deleterious elements sufficient to cause death by suffocation, if enough of it were inhaled. The use of gas for domestic purposes can hardly be made fool proof, but doubtless something might be done to lessen the dangers arising therefrom.

Manufactured gas is not the only gas that contains carbon monoxide. Natural gas, of which infinitely larger quantities are used than of manufactured gas, contains high percentages of carbon monoxide and in some instances hydrogen sulphide, which is more subtle, for the reason that the poison is not destroyed during the process of combustion, as is the case with carbon monoxide. Is it contended that these poisonous elements should be removed from the gas? Such a course is altogether impracticable. We might as well contend for the removal of poisonous elements

during combustion from anthracite coal. The writer is aware of an instance where, through the misarrangement of a furnace damper a whole family was rendered helpless through the inhaling of escaping gases, and had the discovery of the condition been delayed but a very short time, the incident would have been attended with fatal results. This may have been due to "accident" or "carelessness," but in either case the element of danger is there. It will not help us very much to know whether the gas contains 10 per cent or 30 per cent of poisonous elements. The proper thing to do, in my opinion, would be to label it "POISON," and treat it accordingly.

It may be of interest to know what the Washington Bureau of Standards report (Circular 32) says on the subject:—

> "A large proportion of the cases of death or illness caused by gas poisoning are suicidal, or are due to irresponsible conditions such as drunkenness, or to gross ignorance; and in the majority of these cases the character of the gas would perhaps have only a small influence upon the seriousness of the result. A smaller number of deaths and cases of gas poisoning are due, not to the illuminating gas itself, but to the carbon monoxide formed by combustion of the gas with insufficient supply of air, due to a faulty appliance or to an appliance improperly set or connected with insufficient or improper flues. These matters all have an important bearing upon the subject, and it is possible that the protection of the public from danger will be found to lie rather along lines of regulation of appliance form and setting and general education of gas users as to proper precautions than in the limitation of the carbon monoxide content of the gas itself."

The request made to this department is that our inspectors be instructed to test the gas for the quantity of carbon monoxide present when the test for sulphuretted hydrogen is being made. It may be stated that there is no similarity or relation between the two tests. In the case of sulphuretted hydrogen, the test is made simply by suspending a strip of litmus paper in a vessel through which the gas passes, and if there is any discoloration of the paper it shows that sulphuretted hydrogen is present. On the other hand, in order to give the percentage of carbon monoxide present it would be necessary to make a quantitative test with special apparatus, and would also involve the training of our men as to how the test should be made.

The difficulties complained of might be very largely eliminated by the use of proper appliances and a close inspection of the plumbing by the municipalities. For cooking purposes the gas might be used in inclosed ranges properly connected with ample flues to the chimney, and for lighting purposes by fittings that would admit of a sufficient quantity of air being mixed with the gas at the point of combustion.

These are matters of local concern and belong exclusively to the provincial legislatures and the municipalities. This department is concerned only with the weights and measures aspect of the case, that is, the accurate measurement of the gas through the meters and a determination as to whether or not the quantity of heat units are present. The question as to whether the gas is good or bad for the health of the users is one that rests with the provincial rather than with the federal authorities.

I remain, sir, your obedient servant,

ORMOND HIGMAN,
Chief Engineer.

THE ROYAL SOCIETY OF CANADA,
OTTAWA, February 25, 1916.

DEAR MR. VINCENT,—Please accept my thanks for your letter of the 22nd instant, inclosing copy of a report from your Chief Engineer of Gas and Electricity in reference to the memorandum of the committee of the Royal Society.

I am transmitting a copy of this report to the chairman of the committee.

Yours very truly,

DUNCAN E. SCOTT,
Honorary Secretary.

JOSEPH ULRIC VINCENT, Esq.,
Deputy Minister of Inland Revenue,
Ottawa, Ont.

At a subsequent meeting of the committee of the Royal Society the following report on the subject was made:—

"From a report obtained by the honorary secretary of the Royal Society and forwarded to us from the Deputy Minister of Inland Revenue, it is evident that the inspection and control of gas supplies from a hygienic point of view lies with the municipalities and the Provincial Governments. The Dominion Government controls only the calorific power of the gas.

It is further evident that gas for illumination purposes is largely being replaced even in the smaller towns by electricity.

Owing to the impossibility of obtaining proper statistics of deaths and injury from the use of the gas carrying a high percentage of carbon monoxide, and the increased development of its employment as a source of heat and power where the products of combustion and leakage are removed by pipes and chimneys, we consider that it is unwise at present to ask for legislative interference with its use.

Your committee is nevertheless fully convinced of the danger to the community arising from the use of water gas and similar gases carrying a large quantity of the poisonous carbon monoxide, and even if the amount of this poison in the gas cannot be controlled by law, every municipality should be informed by frequent analyses of the degree of danger from this source to which its inhabitants are exposed in using the public gas supply."

G. P. GRAHAM, *Chairman*.
T. C. ROBERTS,
R. F. RUTTAN.

ELECTRICITY INSPECTION

The total revenue collected for meter inspection, etc., during the year ended March 31, 1916, was $70,051.75, as compared with $82,564.95 collected in the previous year. The total expenditures, including cost of inspection and maintenance of equipment, were $57,843.37 as compared with $62,048.00 for the year ended March 31, 1915.

The combined services of electricity and gas, the duties connected with which are performed largely by one set of officers, shows the following financial results:—

Revenue	$116,086.55
Expenditure	124,098.95
Deficit	8,012.40

The somewhat serious falling-off in revenue from both branches of the service is due, partly by the dislocation of social conditions resulting from heavy enlistments for the war and the consequent closing out of meters from a large number of homes, and partly from certain companies taking advantage of war conditions to postpone the testing of their meters until some future date.

A comparative statement of revenue and expenditure for the combined services during the past ten years is as follows:—

Years.	Gas and Electricity. Revenue.	Expenditure.
1906-07	$ 57,868 18	$ 30,793 84
1907-08	86,552 20	48,831 75
1908-09	92,450 21	54,018 71
1909-10	100,647 20	55,514 14
1910-11	112,150 25	63,385 03
1911-12	117,917 45	80,537 87
1912-13	138,090 95	93,000 83
1913-14	143,386 40	113,014 76
1914-15	139,403 25	124,233 49
1915-16	116,086 55	124,098 95

A statement showing the quantities of electrical energy generated or produced for export and for consumption in Canada by certain hydro-electric companies under the authority of the Electricity and Fluid Exportation Act will be found in Appendix "J."

The growing and somewhat insistent demand for power on the part of the municipalities of Ontario for industrial and domestic purposes has brought the question of a reduction of the export quantities granted by license to the hydro-electric companies at Niagara Falls before the department for revision. The Electricity Exportation Act provides that licenses to export "shall be revocable upon such notice to the licensee as the Governor in Council deems reasonable in each case." Under the circumstances a yearly reduction in the quantities to be exported might be deemed a reasonable method of putting an end to the export.

A list of electric light and power companies registered under the provisions of the Electricity Inspection Act, with certain statistics connected with their operation will be found in Appendix "K."

Electrical standardizing laboratories have been established at Ottawa and Vancouver, where the substandards used by the inspectors are adjusted and standardized periodically, also such electrical instruments as may be presented by the general public.

The equipment for another similar laboratory at Winnipeg has been provided, and awaits suitable accommodation for the installation thereof.

I have the honour to be, sir,
Your obedient servant,

J. U. VINCENT,
Deputy Minister.

APPENDIX A.

STATEMENT of Weights and Measures Expenditures and Revenues for the Fiscal Year ended March 31, 1916.

Inspection Divisions.	Inspectors.	Expenditures.						Revenue.
		Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	Total.	
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Belleville	Diamond, F. D.	3,499 65	78 00	622 00	1,114 32	248 86	5,562 83	3,3[illegible] 80
Hamilton	Sealey, J. C.	8,099 52			2,144 23	183 83	10,427 58	10,642 30
Kingston	Gallagher, T.	2,699 85	675 20		1,026 16	60 65	4,461 86	3,48[illegible] 45
London	Hughes, R. A.	5,435 21	878 03	144 00	3,174 80	222 33	9,874 37	9,777 45
Ottawa	Hinchey, E. H.	6,580 78	7,393 46		1,723 36	124 [illegible]	15,882 [illegible]	7,6[illegible] 15
Toronto	McConvey, J. J.	7,749 81	949 95		1,831 22	88 17	10,619 15	11,[illegible] [illegible]
	Ontario	34,084 82	9,974 64	766 00	11,014 12	928 [illegible] 0	56,768 14	45,774 15
Montreal	Archambault, J. E.	12,543 76	3,600 96	975 01	2,473 91	245 83	19,839 47	12,[illegible] [illegible]
Quebec	Roy, Chs. E.	8,374 80	3,857 34	400 00	3,179 87	171 [illegible]	15,983 [illegible]	5,[illegible] [illegible]
Sherbrooke	Delorme, O. C.	2,299 86	1,999 86	375 00	1,006 [illegible]	81 [illegible]	5,762 4[illegible]	[illegible]
St. Hyacinthe	Morin, J. P.	2,599 96	1,665 67	[illegible]	729 67	43 [illegible]	5,038 4[illegible]	1,[illegible] [illegible]
Three Rivers	Lessard, A.	2,249 88	1,999 80	[illegible]	1,475 56	111 08	5,836 [illegible]	2,5[illegible] [illegible]
	Quebec	28,038 26	13,123 63	1,750 01	8,865 38	652 7[illegible]	52,429 [illegible]	25,[illegible] [illegible]
St. John, N.B	Barry, Jas.	4,749 84	32 00		410 66	94 [illegible]	5,287 [illegible]	2,71[illegible] [illegible]
Halifax	O'Brien, Wm.	1,830 03	1,259 92	507 36	587 47	122 31	4,[illegible] [illegible]	1,[illegible] [illegible]
Pictou	Dustan, W. M.	3,199 80	48 00		651 [illegible]	78 [illegible]	3,97[illegible] [illegible]	1,71[illegible] [illegible]
	Nova Scotia	5,029 83	1,307 92	507 36	1,239 [illegible]	201 21	8,285 [illegible]	2,[illegible] [illegible]
Charlottetown	Davy, E.	1,949 88	79 37		167 43	15 71	2,212 [illegible]	[illegible]
Winnipeg, Man	McKay, R.	6,576 48	921 93	866 64	3,[illegible] [illegible]	318 72	12,043 [illegible]	[illegible]
Regina	McLean, D. J.	1,283 30	1,005 [illegible]		810 81	[illegible] [illegible]	3,[illegible] [illegible]	1,[illegible] [illegible]
Saskatoon	Johnston, Chs. W.	3,966 50	3,[illegible] [illegible]	180 00	5,[illegible] [illegible]	192 [illegible]	12,[illegible] [illegible]	[illegible]
	Saskatchewan	5,249 80	4,[illegible] [illegible]	180 00	5,[illegible] [illegible]	509 [illegible]	16,[illegible] [illegible]	11,[illegible] [illegible]
Calgary, Alta	Costello, J. W.	4,599 90	18 00	240 00	2,[illegible] [illegible]	[illegible] [illegible]	7,[illegible] [illegible]	[illegible]
Nelson	Parker, Thos.	1,249 [illegible]	[illegible] [illegible]	180 00	[illegible] [illegible]	111 [illegible]	4,[illegible] [illegible]	1,[illegible] [illegible]
Vancouver	Dutton, A. H.	2,399 [illegible]	[illegible] [illegible]		[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]
	British Columbia	3,649 [illegible]	[illegible] [illegible]	[illegible] [illegible]	2,[illegible] [illegible]	[illegible] [illegible]	7,[illegible] [illegible]	[illegible] [illegible]
Dawson, Yukon	Stingle, J. W.	[illegible] [illegible]				[illegible] [illegible]	1,[illegible] [illegible]	[illegible] [illegible]
Chief Inspector								
Inspector of Elevators	Scales	1,561 00			[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	
Total for	Divisions	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]
Milk Testing Glasses								[illegible] [illegible]
General Contingencies						[illegible] [illegible]	[illegible] [illegible]	
Printing						[illegible] [illegible]	[illegible] [illegible]	
Stationery						[illegible] [illegible]	[illegible] [illegible]	
Provisional Allowance						[illegible] [illegible]	[illegible] [illegible]	
International Bureau of Weights and Measures						[illegible] [illegible]	[illegible] [illegible]	
Grand Totals		[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]	[illegible] [illegible]

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX

RETURN of Weights and Measures inspected during the Fiscal Year ended and Rejected for each Division, for each

Inspection Office.	Weights.									Measures of Capacity.					
	Dominion.			Troy.			Miscellaneous.			Dominion.			Miscellaneous.		
	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.
Belleville	1,383	1,333	56	....	....	..	2	2	..	929	929	..	2,785	2,785	....
Hamilton	7,956	7,921	35	....	....	..	989	989	..	8,294	8,294	..	870	849	21
Kingston	917	917	....	....	....	..	8	8	..	3,456	3,451	5	137	137	....
London	2,727	2,725	2	....	....	..	9	9	..	24,193	24,193	..	4,612	4,606	6
Ottawa	3,437	3,430	7	....	....	..	1	1	..	1,527	1,523	4	2,795	2,561	234
Toronto	3,950	3,950	....	11	11	..	14	14	..	26,991	26,991	..	7,155	7,151	4
Ontario	20,370	20,276	94	11	11	..	1,023	1,023	..	65,390	65,381	9	18,354	18,089	265
Montreal	11,433	11,291	142	53	53	..	516	515	1	26,414	26,413	1	3,785	3,771	14
Quebec	7,003	6,772	231	....	....	..	139	134	5	6,860	6,849	11	214	210	4
Sherbrooke	11,896	11,882	14	9	9	..	397	397	..	879	879	..	209	207	2
St. Hyacinthe	1,042	1,042	....	....	....	..	....	....	..	1,172	1,172	..	67	38	29
Three Rivers	2,349	2,342	7	....	....	..	7	7	..	1,542	1,542	..	80	80	....
Quebec	33,723	33,329	394	62	62	..	1,059	1,053	6	36,867	36,855	12	4,355	4,306	49
t. John, N.B	2,076	2,076	....	....	....	..	....	....	..	2,923	2,923	..	4,692	4,689	3
Halifax	765	765	....	....	....	..	4	4	..	466	466	..	339	337	2
Pictou	1,040	1,040	....	....	....	..	4	4	..	720	720	..	238	218	20
Nova Scotia	1,805	1,805	....	....	....	..	8	8	..	1,185	1,186	.	577	555	22
Charlottetown, P.E.I.	243	243	....	....	....	..	....	....	..	80	80	..	15	15	....
Winnipeg, Man.	3,350	3,350	....	9	9	..	167	167	..	7,292	7,289	3	1,927	1,891	36
Regina	166	166	....	....	....	..	....	....	..	46	45	1	952	944	8
Saskatoon	533	533	..	....	....	..	....	....	..	170	170	..	139	132	7
Saskatchewan	699	699	....	....	....	..	....	....	..	216	215	1	1,091	1,076	15
Calgary, Alta	664	664	....	....	....	..	8	8	..	4	4	..	135	126	9
Nelson	414	414	....	....	....	..	1	1	..	62	62	..	22	22	....
Vancouver	362	362	....	....	....	..	....	....	..	9	9	..	16	16	....
Br. Columbia	776	776	....	....	....	..	1	1	..	71	71	..	38	38	....
Dawson, Yukon	105	105	....	....	....	..	37	37	..	8	8	..	2	2	....
Totals	63,991	63,503	488	82	82	..	2,303	2,297	6	114,037	114,012	25	31,186	30,787	399

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

B

March 31, 1916, showing the Total Number brought for Verification, Verified Province, and for the whole Dominion.

Measures of Length.			Balances, etc											
			Equal Armed.			Steelyards.			Platform Scales, Weight Bridges, etc.			Miscellaneous.		
Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.	Brought for Verification.	Verified.	Rejected.
68	68	...	330	329	1	44	41	3	1,588	1,561	27	375	373	2
1,341	1,288	53	1,800	1,717	83	3,530	3,489	41	7,546	7,076	470	468	399	69
273	273	...	238	237	1	33	33	...	2,098	2,036	62	386	385	1
3,098	3,098	...	570	564	6	262	257	5	3,565	3,382	183	2,819	2,759	60
337	303	34	611	602	9	27	26	1	1,913	1,873	40	4,284	4,260	24
855	855	....	929	898	31	1,223	1,196	27	6,369	6,216	153	2,073	1,984	89
5,972	5,885	87	4,478	4,347	131	5,119	5,042	77	23,079	22,144	935	10,405	10,160	245
708	708	....	2,444	2,405	30	734	720	14	6,059	5,789	270	1,917	1,850	67
1,132	1,123	9	1,079	1,058	21	275	268	7	2,643	2,579	64	550	541	9
128	128	....	1,162	1,161	1	290	288	2	6,374	6,353	21	313	312	1
118	118	...	234	229	5	89	85	4	910	843	67	101	93	8
84	80	4	397	395	2	44	39	5	1,676	1,642	34	202	195	7
2,170	2,157	13	5,316	5,248	68	1,432	1,400	32	17,662	17,206	456	3,083	2,991	92
2	2	....	435	435	..	34	32	2	961	934	27	318	316	2
...	...	....	179	179	..	8	8	..	556	546	10	249	247	2
33	32	1	168	167	1	28	28	..	646	638	8	206	206	..
33	32	1	347	346	1	36	36	...	1,202	1,184	18	445	443	2
2	2	..	57	57	....	23	23	..	232	232	..	24	24	..
807	807	..	521	514	7	207	200	7	3,287	3,145	142	1,822	1,699	123
78	78	..	37	35	2	99	99	..	659	531	128	156	139	17
58	58	..	80	79	1	316	298	18	3,394	2,819	575	621	592	29
136	136	..	117	114	3	415	397	18	4,053	3,350	703	777	731	46
..	..	..	74	74	..	30	29	1	1,142	1,075	67	411	396	15
32	32	..	98	98	..	74	74	..	778	778	..	319	319	..
..	..	..	81	81	..	109	109	..	960	945	15	1,011	1,002	9
32	32	..	179	179	..	183	183	..	1,738	1,723	15	1,330	1,321	9
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9,151	9,063	101	11,594	11,314	210	7,479	7,342	137	83,146	80,783	2,363	18,627	18,061	467

J. F. VINCENT,
Deputy Minister.

APPENDIX

RETURN showing the Number of Dominion Weights and Lineal Measures of during the Fiscal Year

Inspection Division.	Dominion Avoir- 60 lbs.	50 lbs.	30 lbs.	25 lbs.	20 lbs.	10 lbs.	5 lbs.	4 lbs.	3 lbs.	2 lbs.	1 lb.	8 ozs.	4 ozs.	2 ozs
Belleville	..	32	32	..	..	2	56	69	153	318	290	104	97	89
Hamilton	..	874	38	..	7	26	447	60	1,182	1,745	1,786	579	328	246
Kingston	..	....	....	..	....	13	32	63	95	281	227	70	53	43
London	..	....	3	..	2	10	77	79	246	577	533	264	259	250
Ottawa	..	....	..	..	..	4	91	47	195	392	315	410	390	374
Toronto	..	41	....	..	....	126	290	351	242	1,089	880	212	196	194
Ontario	..	947	73	..	9	181	993	669	2,113	4,402	4,031	1,639	1,323	1,196
Montreal	..	265	1	..	5	247	809	674	1,144	2,285	2,004	1,117	942	812
Quebec	..	97	15	3	13	53	379	498	517	1,054	998	899	877	763
Sherbrooke	..	1,940	....	1	113	279	54	1,927	93	1,878	1,446	725	513	483
St. Hyacinthe	..	....	....	..	....	1	68	29	161	211	196	144	90	60
Three Rivers	..	79	....	..	....	....	152	73	370	403	372	284	259	171
Quebec	..	2,381	14	4	131	580	1,462	3,101	2,285	5,831	5,016	3,167	2,681	2289
St. John, N. B.	..	80	....	..	....	21	104	114	179	495	418	218	163	133
Halifax	..	40	..	..	....	10	25	58	56	236	147	69	50	41
Pictou	..	298	1	3	1	5	17	46	129	201	151	49	45	37
Nova Scotia	..	338	1	3	1	15	42	104	185	437	298	118	95	78
Charlottetown, P.E.I.	..	....	....	..	....	2	9	22	22	75	54	16	15	13
Winnipeg, Man.	..	918	34	9	67	79	112	189	141	625	520	193	152	143
Regina	..	....	....	..	....	..	5	1	9	30	27	22	18	18
Saskatoon	4	6	4	6	4	11	16	20	18	92	80	53	44	40
Saskatchewan	4	6	4	6	4	11	21	21	27	123	107	75	62	58
Calgary, Alta.	..	22	102	3	14	23	49	47	32	110	90	22	22	22
Nelson	..	....	....	..	....	1	12	14	36	97	71	46	42	40
Vancouver	..	1	10	1	5	16	11	26	17	105	80	24	25	12
British Columbia	..	1	10	1	5	17	23	40	53	202	151	70	67	52
Dawson, Yukon	..	....	....	..	..	....	12	3	18	31	25	16	.....	.....
Totals	4	4,693	334	26	261	929	2,827	4,310	5,055	12,330	10,710	5,534	4,580	3984

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 13

C

each Denomination presented for Verification in each Inspection Division ended March 31, 1916.

Weights.							Troy Weights.	Miscellaneous Weights.	Lineal Measures.									Miscellaneous Measures.
dupois.																		
1 oz.	8 drs.	4 drs.	2 drs.	1 dr.	½ dr.	Total Number.			6 feet.	5 feet.	1 yard.	½ yard.	2 feet.	1 foot.	½ foot.	100 feet chains.	66 feet chains.	Tape or riband.	Total Number.	
83	37	19	1	1	....	1,383	..	2			68								6	
249	211	147	19	10	2	7,956	....	989	..	2	1,339								1,341	
25	8	4	2	1	...	917	..	8		...	273								273	
240	135	44	6	2	..	2,727	....	9	....	..	3,098	....	..						3,098	
359	328	506	11	11	4	3,437	....	1	....	...	337	....	..						337	
182	47	28	31	37	3	3,950	11	14	..	...	855	..							855	
1,139	766	748	70	62	9	20,370	11	1,023	..	2	5,970	..							5,972	
625	278	136	98	88	3	11,433	53	510			708								708	
576	134	105	16	7	1	7,003		139	..	..	1,132								1,132	
500	538	445	337	322	304	11,896	9	397	...	...	128								128	
37	22	9	10	3	1	1,042	..				118								118	
103	50	32	1	..		2,349	..	7		..	84								84	
1,811	1,022	727	462	420	309	33,723	62	1,050	..	..	2,170	..							2,170	
88	4	11	4	2	1	2,076					2								2	
23	10	..	..	..	..	765	..	1												
25	16	10	4	1	1	1,040	..	3			33								33	
48	26	10	4	1	1	1,805		8			33								33	
6	3	5	1			243					2								2	
134	101	72	27	14		3,530	9	167			807								807	
15	10	8	2	1	..	156														
41	38	31	15	9	1	533			..	..	78								78	
56	48	39	17	10	1	689	..				1,392								1,392	
21	20	16	13	6	...	664	..	8	..		..									
38	10	6	1	..	..	414		1			32								32	
10	10	7	2	..	..	362	..	..												
48	20	13	3	..		776														
						100		37												
3,381	2,048	1,641	661	515	321	63,991	82	2,860		5	9,132								9,137	

J. U. VINCENT,
Deputy Minister.

APPENDIX

RETURN showing the Number of Dominion Weights and Lineal Measures of each March

Inspection Division.	Dominion Avoir													
	60 lbs.	50 lbs.	30 lbs.	25 lbs.	20 lbs.	10 lbs.	5 lbs.	4 lbs.	3 lbs.	2 lbs.	1 lb.	8 ozs.	4 ozs.	2 ozs.
Belleville	..	32	32	..	....	2	54	67	145	301	271	102	97	89
Hamilton	..	874	38	..	7	26	447	60	1,182	1,745	1,786	573	322	240
Kingston	..	.....	.....	.....	.....	13	32	63	95	281	227	70	53	43
London	..	....	3	..	2	10	77	79	246	577	533	263	258	250
Ottawa	..	...	....	.....	.....	4	91	47	195	392	315	408	389	373
Toronto	..	41	....	.....	.....	126	290	351	242	1,989	880	212	196	194
Ontario	..	947	73	..	9	181	991	667	2,105	4,385	4,012	1,628	1,315	1,189
Montreal	..	265	1	..	5	243	800	569	1,134	2,262	1,976	1,087	926	798
Quebec	..	97	13	3	13	49	362	474	496	1,014	967	866	848	740
Sherbrooke	..	1,940	...	1	113	279	53	1,925	91	1,875	1,443	722	512	482
St Hyacinthe	..	....	....	..	....	1	68	29	161	211	196	144	90	60
Three Rivers	..	79	...	..	.....	....	152	71	370	401	370	283	254	171
Quebec	..	2,381	14	4	131	572	1,435	3,068	2,252	5,763	4,952	3,102	2,635	2,251
St. John, N.B	..	80	....	..	....	21	104	114	179	495	418	218	163	133
Halifax	..	40	....	..	...	10	25	58	56	236	147	69	50	41
Pictou	..	298	1	3	1	5	17	46	129	501	151	49	45	37
Nova Scotia	..	338	1	3	1	15	42	104	185	437	298	118	95	78
Charlottetown, P.E.I	..	... ..	....	..	....	2	9	22	22	75	54	16	15	13
Winnipeg, Man	.	918	34	9	67	79	112	189	141	625	520	193	152	143
Regina	..	.....	.....	..	.....	.....	5	1	9	30	27	22	18	18
Saskatoon	4	6	4	6	4	11	16	20	18	92	80	53	44	40
Saskatchewan	4	6	4	6	4	11	21	21	27	122	107	75	62	58
Calgary, Alta	..	22	102	3	44	23	49	47	32	110	90	22	22	22
Nelson	.	.....	..	..	....	1	12	14	36	97	71	46	42	40
Vancouver	.	1	10	1	5	16	11	26	17	105	80	24	25	12
British Columbia	..	1	10	1	5	17	23	40	53	202	151	70	67	52
Dawson, Yukon	..	.....	....	..	...	.	12	3	18	31	25	16	.....	.....
Totals	4	4,693	238	26	261	921	2,798	4,275	5,014	12,245	10,627	5,458	4,526	3,939

INLAND REVENUE DEPARTMENT,
OTTAWA July 1, 1916.

SESSIONAL PAPER No. 13

C---*Continued.*

Denomination Verified in each Inspection Division during the Fiscal Year ended 31, 1916.

Weights.							Troy Weights.	Miscellaneous Weights.	Lineal Measures.									Miscellaneous Measures.
dupois.																		
1 oz.	8 drs.	4 drs.	2 drs.	1 dr.	½ dr.	Total Number.			6 feet.	5 feet.	1 yard.	½ yard.	2 feet.	1 foot.	½ foot.	100 feet chains.	66 feet chains.	Tape or riband.	Total Number.	
83	37	19	1	1	...	1,333	....	2	...	..	68	..	..	..	..	..	..	..	68	
243	205	143	18	10	2	7,921	....	989	....	....	1,288	..	..	..	..	..	..	..	1,288	
25	8	4	2	1	....	917	....	8	....	....	273	...	..	..	..	..	..	..	273	
240	135	44	6	2	....	2,725	..	9	...	....	3,098	...	..	..	..	..	..	..	3,098	
358	327	505	11	11	4	3,430	....	1	....	...	303	....	..	..	..	..	..	..	303	
183	47	28	31	37	3	3,950	11	14	....	....	855	....	..	..	..	..	..	..	855	
1,132	759	743	69	62	9	20,276	11	1,023	....	..	5,885	...	..	..	..	..	..	..	5,885	
623	277	136	98	88	3	11,291	53	515	...	....	708	...	..	..	..	..	..	..	708	
568	133	105	16	7	1	6,772	...	134	....	....	1,123	....	..	..	..	..	..	..	1,123	
500	538	445	337	322	304	11,882	9	397	....	....	128	....	..	..	..	..	..	..	128	
37	22	9	10	3	1	1,042	....	.....	.....	...	118	....	..	..	..	..	..	..	118	
103	50	32	1	....	...	2,342	..	7	....	...	80	..	..	..	..	..	..	..	80	
1,831	1,020	727	462	420	309	33,329	62	1,053	....	...	2,157	...	..	..	..	..	..	..	2,157	
88	12	11	4	2	1	2,076	....	.. .	....	....	2	....	..	..	..	..	..	..	2	
23	10	....	....	...	....	765	....	4	...	...	.....	..	..	..	..	..	..	..	.	
25	16	10	4	1	1	1,040	....	4	....	....	32	...	..	..	..	..	..	..	32	
48	26	10	4	1	1	1,805	...	8	...	....	32	....	..	..	..	..	..	..	32	
6	3	5	1	..	....	243	....	...	...	....	2	....							2	
131	101	72	27	14	....	3,530	9	167	....	....	807								807	
15	10	8	2	1	..	166	...	....	....	....	78	..	..	..	..	..	..	..	78	
41	38	31	15	9	1	533	..	....	...	.	58								58	
56	48	39	17	10	1	699	.	....	...	.	136	.	..	..	..	..	..	..	136	
21	20	16	13	6		664	...	8	.	.										
38	10	6	1	..		414	.	1	.	.	32								32	
10	10	7	2	..	..	362	..	..	..	..	....	....								
48	20	13	3	.	.	776		1	.	.	32								32	
...	...	...	....	....	....	105		37	.	.										
2,364	2,039	1,639	660	515	321	63,503	82	2,297	....	..	9,053								9,053	

J. U. VINCENT,
Deputy Minister.

APPENDIX

RETURN showing the Number of Dominion Weights and Lineal Measures of each March

Inspection Division.	Dominion Avoir													
	60 lb.	50 lb.	30 lb.	25 lb.	20 lb.	10 lb.	5 lb.	4 lb.	3 lb.	2 lb.	1 lb.	8 oz.	4 oz.	2 oz.
Belleville							2	2	8	17	19	2		
Hamilton												6	6	6
Kingston														
London												1	1	
Ottawa												2	1	1
Toronto														
Ontario							2	2	8	17	19	11	8	7
Montreal						4	9	5	10	23	28	30	16	14
Quebec						4	17	24	21	40	31	33	29	23
Sherbrooke							1	2	2	3	3	1	1	1
St. Hyacinthe														
Three Rivers								2		2	2	1		
Quebec						8	27	33	33	68	64	65	46	38
St. John, N.B.														
Halifax														
Pictou														
Nova Scotia														
Charlottetown, P.E.I.														
Winnipeg, Man.														
Regina														
Saskatoon														
Saskatchewan														
Calgary, Alta														
Nelson														
Vancouver														
British Columbia														
Dawson, Yukon														
Totals						8	29	35	41	85	83	76	51	45

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 13

C.—*Concluded.*

Denomination rejected in each Inspection Division, during the fiscal Year ended 31, 1916.

Weights.							Troy Weights.	Miscellaneous Weights.	Lineal Measures.										Miscellaneous Measures.
Avoirdupois.																			
1 oz.	8 drs.	4 drs.	2 drs.	1 dr.	½ dr.	Total Number.			6 feet.	5 feet.	1 yard.	½ yard.	2 feet.	1 foot	½ foot.	100 feet chains.	66 feet chains.	Tape or riband.	Total Number.	
						50													
6	6	4	1			35					55								55	
1	1	1				7					34								34	
7	7	5	1			94					87								87	
2	1					142		1												
8	1					231		7			9								9	
						14														
		1				7					4								4	
10	2					394		6			13								13	
											1								1	
											1								1	

APPENDIX

RETURN showing the number of Dominion Measures of Capacity, Balances and Inspection Division, during the

Inspection Division.	Measures of Capacity. Dominion. Bushel.	½ Bushel.	Peck.	Gallon.	½ Gallon.	Quart.	Pint.	½ Pint.	Gill.	½ Gill.	Total Number.	Miscellaneous.
Belleville	5	7	33	220	221	289	149	3	2	...	929	2,785
Hamilton	497	307	853	1,475	1,089	2,049	1,599	413	11	1	8,294	870
Kingston	6	362	227	572	783	841	589	75	1	....	3,456	137
London	420	924	557	3,597	4,352	8,060	5,761	522	.....	....	24,193	4,612
Ottawa	....	2	18	234	454	531	249	39	.....	....	1,527	2,795
Toronto	439	1,989	1,720	5,756	3,399	7,883	5,302	503	.....	....	26,991	7,155
Ontario	1,360	3,591	3,388	11,854	10,298	19,653	13,649	1,555	14	1	65,390	18,354
Montreal	4	918	1,548	3,935	4,638	6,473	6,607	2,057	191	43	26,414	3,785
Quebec	.....	123	217	1,479	1,884	1,790	1,018	312	37	....	6,860	214
Sherbrooke	.....	19	19	207	250	240	125	19	.....	....	879	209
St. Hyacinthe	....	17	32	236	236	295	174	66	15	1	1,172	67
Three Rivers	.....	8	15	294	472	407	256	80	10	...	1,542	80
Quebec	4	1,085	1,831	6,151	7,480	9,205	8,180	2,534	253	44	36,867	4,355
St. John, N.B.	.....	110	135	513	731	722	656	53	3	...	2,923	4,692
Halifax	3	9	7	114	182	106	37	4	3	1	466	339
Pictou	.....	1	1	139	280	215	84	.....	.....	....	720	238
Nova Scotia	3	10	8	253	462	321	121	4	3	1	1,186	577
Charlottetown, P.E.I.	....	.....	.....	1	8	45	25	1	.....	..	80	15
Winnipeg, Man.	85	.....	1	1,580	1,550	2,469	1,514	90	3	....	7,292	1,927
Regina	..	.....	.....	18	16	5	7	.....	.....	....	46	952
Saskatoon	.....	.....	.....	75	46	30	16	3	....	....	170	139
Saskatchewan	.....	.....	.....	93	62	35	23	3	.....	....	216	1,091
Calgary, Alta	..	....	.....	1	1	.....	2	.....	...	....	4	135
Nelson	.....	.....	....	22	21	14	4	1	.....	....	62	22
Vancouver	....	.....	1	1	.....	2	4	1	....	....	9	16
British Columbia	..	.....	1	23	21	16	8	2	....	....	71	38
Dawson, Yukon	..	.....	.....	2	2	2	2	..	.....	...	8	2
Grand total	1,452	4,79	5,364	20,471	19,884	32,468	24,180	4,242	273	88	114,037	31,186

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 13

D

Weighing Machines of each Denomination presented for verification, in each Fiscal Year ended March 31, 1916.

Balances.														
With Equal Arms.				Steel Yards with Divided Arms.				Weigh Bridges or Platform Scales.						
25 lbs. and under.	26 lbs. to 50 lbs.	51 lbs. to 100 lbs.	101 lbs. and upwards.	500 lbs. and under.	501 lbs. to 1,000 lbs.	1,001 lbs. to 2,000 lbs.	2,001 lbs. and upwards	250 lbs. and under.	251 lbs. to 500 lbs.	501 lbs. to 2,000 lbs.	2,001 lbs. to 4,000 lbs.	4,001 lbs. to 6,000 lbs.	6,001 lbs. and upwards	Total.	Miscellaneous.
186	112	32	....	39	3	2	....	442	97	613	131	24	281	1,962	375
1,775	3	..	22	3,495	33	12	..	5,135	138	1,446	293	126	408	12,876	468
237	1	....	....	31	2	....	.....	535	121	1,205	55	38	144	2,369	386
564	4	1	1	259	3	....	...	269	117	1,737	290	96	696	4,397	2,819
605	6	..	....	25	1	1	....	620	137	823	61	57	215	2,551	4,284
905	19	5	....	1,191	7	25	.....	4,291	101	1,302	216	69	390	8,521	2,073
4,272	145	38	23	5,040	49	30	....	11,652	711	7,126	1,046	410	2,134	32,676	10,405
2,097	340	4	3	717	12	3	2	2,044	1,154	2,096	225	116	424	9,237	1,917
889	184	2	13	242	16	4	3	893	749	779	59	67	96	3,997	550
880	218	49	15	269	8	5	8	1,154	713	1,001	128	158	219	7,826	313
234	....	.	.	88	.....	1	....	432	305	20	57	83	15	1,233	101
395	2	....	....	44	.....	.....	....	459	469	666	15	21	46	2,117	202
4,486	744	55	31	1,360	46	13	13	7,982	3,389	4,562	484	445	800	24,410	3,083
434	1	....	....	33	1	.....	....	341	155	313	36	13	103	1,430	318
176	3	....	....	7	1	.....	...	232	52	149	14	14	95	743	249
162	3	...	3	28	....	.	.....	259	89	138	15	12	133	842	206
338	6	....	3	35	1	....	.....	491	141	287	29	26	228	1,585	455
56	1	.	....	22	1	.....	..	64	21	115	4	9	19	312	24
485	11	.	25	204	2	1	.....	595	168	730	251	467	1,076	4,015	1,825
37	.....	.	.	91	7	1	.	77	7	99	21	149	306	795	150
80	.....	...	...	312	4	.	.	373	12	246	94	833	1,836	3,790	621
117	.. ....	...	.	403	11	1		450	19	345	113	982	2,142	4,789	777
62	2	1	9	15	11	4		223	14	269	29	111	475	1,246	411
98	.....	.	.	41	12	20	1	250	17	205	19	7	82	730	314
76	.....	1	4	20	31	37	21	335	32	422	53	18	98	1,140	1,011
174	.....	1	4	61	43	57	22	585	49	627	72	25	172	1,870	1,325
. ....	.	....	....	.	..	.	.	.	.	.	.	.	.	.	.
10,424	910	95	95	7,173	165	106	35	22,383	4,667	14,407	2,695	2,488	7,149	72,144	18,028

J. U. VINCENT,
Deputy Minister.

APPENDIX

RETURN showing the Number of Dominion Measures of Capacity, Balances and during the Fiscal Year

Inspection Division.	Measures of Capacity. Dominion. Bushel.	Half bushel.	Peck.	Gallon.	Half gallon.	Quart.	Pint.	Half pint.	Gill.	Half gill.	Total number.	Miscellaneous.
Belleville	5	7	33	220	221	289	149	3	2	..	929	2,785
Hamilton	497	307	853	1,475	1,089	2,049	1,599	413	11	1	8,294	849
Kingston	6	362	227	570	782	840	588	75	1	..	3,451	137
London	420	924	557	3,597	4,352	8,060	5,761	522	..	..	24,193	4,606
Ottawa	..	2	18	233	451	531	249	39	..	..	1,523	2,561
Toronto	439	1,989	1,720	5,756	3,399	7,883	5,302	503	..	..	26,991	7,151
Ontario	1,367	3,591	3,408	11,851	10,294	19,652	13,648	1,555	14	1	65,581	18,089
Montreal	4	918	1,548	3,934	4,638	6,473	6,607	2,057	191	43	26,413	3,771
Quebec	..	123	217	1,475	1,881	1,786	1,018	312	37	..	6,849	210
Sherbrooke	..	19	19	207	250	240	125	19	..	..	879	207
St. Hyacinthe	..	17	32	236	336	295	174	66	15	1	1,172	38
Three Rivers	..	8	15	294	472	407	256	80	10	..	1,542	80
Quebec	4	1,085	1,831	6,146	7,577	9,201	8,180	2,534	253	44	36,855	4,306
St. John, N.B.	..	110	135	513	731	722	656	53	3	..	2,925	4,689
Halifax	3	9	7	114	182	106	37	4	3	1	466	337
Pictou	..	1	1	139	280	215	84	..	..	..	720	218
Nova Scotia	3	10	8	253	462	321	121	4	3	1	1,186	555
Charlottetown, P.E.I.	..	..	..	1	8	45	25	1	..	..	80	15
Winnipeg, Man.	85	..	1	1,580	1,550	2,466	1,514	90	3	..	7,289	1,891
Regina	..	..	..	18	15	5	7	..	..	..	45	944
Saskatoon	..	..	..	75	46	30	16	3	..	..	170	132
Saskatchewan	..	..	..	93	61	35	23	3	..	..	215	1,076
Calgary, Alta.	..	..	..	1	1	..	2	..	..	..	4	126
Nelson	..	..	..	22	21	14	4	1	..	..	62	22
Vancouver	..	..	1	1	..	2	4	1	..	..	9	16
British Columbia	..	..	1	23	21	16	8	2	..	..	71	38
Dawson, Yukon	..	..	..	2	2	2	2	..	..	..	8	2
Totals	1,459	4,796	5,384	20,463	20,707	32,460	24,179	4,242	276	46	114,012	30,787

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 13

D—*Continued.*

Weighing Machines of each Denomination verified, in each Inspection Division, ended March 31, 1916.

Balances.															
With equal arms.				Steel yards with divided arms.				Weigh Bridges or Platform Scales.							
25 lbs. and under.	26 lbs. to 50 lbs.	51 lbs. to 100 lbs.	101 lbs. and upwards.	500 lbs. and under.	501 lbs. to 1,000 lbs.	1,001 lbs. to 2,000 lbs.	2,001 lbs. and upwards.	250 lbs. and under.	251 lbs. to 500 lbs.	501 lbs. to 2,000 lbs.	2,001 lbs. to 4,000 lbs.	4,001 lbs. to 6,000 lbs.	6,001 lbs. and upwards.	Total.	Miscellaneous.
186	111	32	...	36	3	2	....	437	95	604	129	22	274	1,931	373
1,692	3	....	22	3,154	33	20	....	5,076	116	1,241	254	111	278	12,282	309
236	1	....	..	31	2	....	....	729	112	1,167	54	34	140	2,306	385
558	4	1	1	254	2	....	....	605	113	1,666	28	89	629	4,203	2,759
596	6	....	....	24	1	1	....	612	133	804	60	55	211	2,501	1,260
874	19	5	...	1,161	7	25	....	4,253	89	1,251	199	47	377	8,310	1,984
4,142	144	38	23	4,963	49	30	...	11,512	658	6,732	976	356	1,909	31,533	10,160
2,066	332	4	3	703	12	3	2	1,990	1,107	1,972	213	107	400	8,914	1,870
862	181	2	13	237	24	4	3	879	734	757	57	63	89	3,905	541
879	218	49	15	267	8	5	8	4,149	710	996	127	157	217	7,802	312
229	.....	....	...	84	..	1	.	466	274	19	52	77	15	1,157	93
393	2	...	...	59	.		...	452	457	654	13	20	46	2,076	195
4,429	733	55	31	1,330	44	13	13	7,876	3,282	4,395	462	424	767	23,854	2,991
436	1	..		31	1	....	.	358	150	303	31	12	97	1,401	316
176	3	....	..	7	1	.		232	32	146	14	14	88	735	247
161	3	.	3	28			..	258	89	137	13	10	131	833	205
337	6	..	3	35	1	..	.	490	141	283	27	24	219	1,568	453
56	1	.	....	22	1	....	.	64	21	115	4	8	14	314	24
180	11	.	23	197	2	1	.	580	160	700	243	45	1,002	3,830	1,000
35	.	....	.	91	7	1	....	63	6	79	14	13	237	600	120
77	....	....	....	294	4	.		363	12	227	80	76	1,362	8,120	2[illegible]
112				389	11	1		426	18	306	103	88	1,599	3,830	731
62	2	1	0	14	11	4	.	214	14	289	29	169	488	1,178	386
98			.	41	18	20	1	270	17	286	19	7	82	720	340
76		1	1	26	51	37	21	331	29	113	62	18	80	1,370	1,402
174		1	1	61	14	57	21	581	49	616	71	89	474	1,870	1,450
10,228	898	96	93	7,038	161	106	39	22,081	4,497	13,714	1,946	2,519	[illegible]	[illegible]	15,891

J. U. VINCENT,
Deputy Minister.

APPENDIX

RETURN showing the Number of Dominion Measures of Capacity, Balances and during the Fiscal Year

Inspection Division.	Measures of Capacity. Dominion. Bushel.	Half Bushel.	Peck.	Gallon.	Half Gallon.	Quart.	Pint.	Half Pint.	Gill.	Half Gill.	Total Number.	Miscellaneous.
Belleville												
Hamilton												21
Kingston				2	1	1	1				5	
London												6
Ottawa				1	3						4	234
Toronto												4
Ontario				3	4	1	1				9	265
Montreal				1							1	14
Quebec				4	3	4					11	4
Sherbrooke												2
St. Hyacinthe												29
Three Rivers												
Quebec				5	3	4					12	49
St. John, N.B.												3
Halifax												2
Pictou												20
Nova Scotia												22
Charlottetown, P.E.I.												
Winnipeg, Man.						3					3	36
Regina					1						1	8
Saskatoon												7
Saskatchewan					1						1	15
Calgary, Alberta												9
Nelson												
Vancouver												
British Columbia												
Dawson, Yukon												
Totals				8	8	8	1				25	399

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

SESSIONAL PAPER No. 13

D—*Concluded.*

Weighing Machines of each Denomination Rejected in each Inspection Division. ended March 31, 1916.

Balances.														
With Equal Arms.				Steel Yards with Divided Arms.				Weigh Bridges or Platform Scales.						
25 lbs. and under.	26 lbs. to 50 lbs.	51 lbs. to 100 lbs.	101 lbs. and upwards.	500 lbs. and under.	501 lbs. to 1,000 lbs.	1,001 lbs. to 2,000 lbs.	2,001 lbs. and upwards.	250 lbs. and under.	251 lbs. to 500 lbs.	501 lbs. to 2,000 lbs.	2,001 lbs. to 4,000 lbs.	4,001 lbs. to 6,000 lbs.	6,001 lbs. and upwards.	Total.	Miscellaneous.
.....	1	....	....	3	.....	....	....	5	2	9	2	2	7	31	2
83	.....	...	....	41	....	....	....	59	22	205	39	15	130	594	69
1	...	....	..	....	....	....	....	6	9	38	1	4	4	63	1
5	1	...	....	5	.....	...	...	24	4	71	10	7	67	194	60
9	.....	....	....	1	.....	....	....	8	4	19	1	4	4	50	24
31	...	....	....	27	...	...	...	38	12	51	17	22	13	211	89
129	2	....	....	77	.. ..	...	....	140	53	393	70	54	225	1,143	245
31	8	....	....	14	....	...	...	54	47	124	12	9	24	323	67
18	3	....	...	5	2	....	....	14	15	22	2	4	7	92	9
1	.....	...	....	2	....	....	..	5	4	8	1	1	2	24	1
5	....	..	....	4	...	....	....	26	29	1	5	6		76	8
2	.....	....	....	5	.. ..	.. .	...	7	12	12	2	1		41	7
57	11	....	...	30	2	....	....	106	107	167	22	21	33	556	92
.....	.....	...	. ..	2	. .	....	...	3	5	10	2	1	6	29	2
.....	... .	....	....	....	. .	....	...	....	.. ..	3	. .	.....	7	10	2
1	.....	..	....	..	.. .	....	..	1	.. ..	1	2	2	2	9	.. .
1	.....	....	...	....	.....	....	..	1	. .	4	2	2	9	19	2
...	.....	...	....	.....	...	...	....	....	..	.....	.....	.....	.....	.....	.....
5	...	....	2	7	.....	...	...	15	8	30	8	8	73	156	126
2	...	...	...	...	...	...	...	14	1	20	7	17	69	130	17
1	...	...	....	18	...	....	...	10	...	19	5	67	474	594	70
3	...	...	...	18	.....	...	...	24	1	39	12	84	543	724	46
...	...	...	...	1	...	...	...	9	...	16	...	5	37	68	25
...	...	..	...	...	...	...	...	4	...	9	1	...	1	15	8
...	...	...	...	...	...	...	...	4	...	9	1	...	1	15	9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
195	13	...	2	139	2	...	...	362	174	608	117	175	925	2,710	495

J. U. VINCENT,
Deputy Minister.

APPENDIX E.

STATEMENT of Gas Inspection Expenditures and Revenues for the Fiscal Year ended March 31, 1916.

Districts.	Inspectors.	Expenditures.						Revenues.
		Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	Total.	
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Belleville	Fraser, H.	99 96	81 00	200 00	272 25	75 44	728 65	1,612 00
Hamilton	Lutz, H.	3,949 92	958 00	120 00	570 15	186 21	5,784 28	6,895 45
London	Nash, A. F.	5,493 68	84 00		557 55	128 94	6,264 17	7,546 15
Ottawa	Morrison, A. C.	4,599 72	3,033 02	429 90		54 95	8,117 59	2,635 65
Toronto	Stiver, J. L.	11,724 48	180 00	165 00	269 80	263 69	12,602 97	11,347 90
	Ontario	25,867 76	4,336 02	914 90	1,669 75	709 23	33,497 66	30,037 15
Montreal	Aubin, A.	7,899 84	66 00	400 00	58 20	107 67	8,531 71	7,470 45
Quebec	Cantin, J. A., Act'g	499 92					499 92	870 30
Sherbrooke	Simpson, A. F.	499 92					499 92	186 10
St. Hyacinthe	Aubin, A., Act'g.							110 60
	Quebec	8,899 68	66 00	400 00	58 20	107 67	9,531 55	8,637 45
Fredericton	Wilson, J. E., Act'g	99 96					99 96	
St. John	Wilson, J. E	1,988 60	20 00		179 40	43 10	2,231 10	614 90
	New Brunswick	2,088 56	20 00		179 40	43 10	2,331 06	614 90
Halifax, N.S.	Toale, John.	2,399 88		507 36			2,907 24	560 75
Charlottetown, P.E.I	Bell, J. H.	499 92					499 92	75 10
Winnipeg, Man	Hamilton, R.	6,749 88				155 33	6,905 21	2,567 45
Calgary, Alb.	Kyle, W. P.		61 32		153 65	117 16	332 13	1,178 85
Vancouver	Stott, John.					27 00	27 00	1,804 75
Victoria	Dresser, F.	1,499 88			10 30		1,510 18	558 40
	British Columbia	1,499 88			10 30	27 00	1,537 18	2,363 15
	Inspector of Eastern Dominion				407 30	22 76	430 06	
	Inspector for Western Dominion		166 66		485 30	83 58	735 54	
	Totals for Inspectors.	48,005 56	4,650 00	1,822 26	2,963 90	1,265 83	58,707 55	46,034 80
General Contingencies						1,991 09	1,991 09	
Printing						4,458 04	4,458 04	
Stationery						1,098 90	1,098 90	
Grand Totals		48,005 56	4,650 00	1,822 26	2,963 90	8,813 86	66,255 58	46,034 80

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX F.

APPENDIX

RETURN of the Coal and Water Gas Companies registered and

NOTE: Calorimetric Regulations

Location.	Company. Name.	Kind of Gas.	Number of Meters.
Barrie, Ont.....	Barrie Gas Co	Carburetted Water Gas	631
		"	
		"	
		"	
Belleville, Ont.....	Corporation of Belleville.	Carburetted Water Gas	1405
		"	
		C.W.G. and Coal Gas..	
		"	
		"	
		"	
Berlin, Ont.....	Corporation of Berlin.	Coal Gas.	2827
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Brockville, Ont.....	Corporation of Brockville...	Carburetted Water Gas	1627
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Charlottetown, P.E I....	Charlottetown Light and Power Co	Coal Gas.	96
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Cobourg, Ont	Cobourg Gas Light and Water Co.....	Coal Gas.	423
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	

* Testing apparatus not installed till November.

† Testing apparatus not installed till October.

SESSIONAL PAPER No. 13

F.

Calorimetric Tests made during the Fiscal Year ended March 31, 1916.

not established till July 1, 1915.

Calorimetric Values—Standard 520 British Thermal Units.

Month.	Number of Tests.		Highest B.T U.	Lowest B.T.U.	Average B.T.U.		Readings below Standard.
	Prescribed.	Made.			Monthly.	Yearly.	
Nov., 1915*	2	2	619	580	600		0
Dec., 1915	3	3	596	582	589		0
Jan., 1916	2	2	576	564	570		0
Feb., 1916	2	2	607	595	601		0
Mar., 1916	2	3	589	582	586	589	0
Oct., 1915†	4	4	536	496	520		486
Nov., 1915	4	4	586	504	538		504
Dec., 1915	5	5	547	513	535		513
Jan., 1916	4	4	533	523	526		0
Feb., 1916	4	4	548	480	518		480
Mar., 1916	5	5	540	521	532	528	0
July, 1915	8	8	566	539	553		0
Aug., 1915	8	8	602	535	564		0
Sept., 1915	10	10	567	520	540		0
Oct., 1915	8	8	552	525	539		0
Nov., 1915	8	8	589	529	537		0
Dec., 1915	10	10	602	523	535		0
Jan., 1916	8	8	570	523	535		0
Feb., 1916	8	8	552	524	539		0
Mar., 1916	10	10	544	521	531	541	0
July, 1915	4	4	620	598	609		0
Aug., 1915	4	4	634	589	607		0
Sept., 1915	5	5	607	596	600		0
Oct., 1915	4	4	630	573	601		0
Nov., 1915	4	4	595	571	581		0
Dec., 1915	5	5	589	564	575		0
Jan., 1916	4	4	582	559	571		0
Feb., 1916	4	4	594	523	561		0
Mar., 1916	5	5	540	544	548	584	0
July, 1915	12	12	764	746	755		0
Aug., 1915	12	12	705	685	695		0
Sept., 1915	12	12	710	698	704		0
Oct., 1915	12	12	688	664	676		0
Nov., 1915	12	12	714	704	709		0
Dec., 1915	12	12	734	686	705		0
Jan., 1916	12	12	731	695	713		0
Feb., 1916	12	12	722	721	722		0
Mar., 1916	12	12	710	703	707	710	0
July, 1915	12	12	636	607	611		0
Aug., 1915	12	12	613	598	606		0
Sept., 1915	12	12	597	587	592		0
Oct., 1915	12	12	575	573	574		0
Nov., 1915	12	12	606	594	600		0
Dec., 1915	12	12	637	617	628		0
Jan., 1916	12	12	638	631	635		0
Feb., 1916	12	12	628	626	627		0
Mar., 1916	12	12	609	605	607	607	0

RETURN of the Coal and Water Gas Companies registered and

NOTE:—Calorimetric Regulations

Company.			
Location.	Name.	Kind of Gas.	Number of Meters.
Cornwall, Ont.	Stormont Electric Light and Power Co.	Carburetted Water Gas	306
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Deseronto, Ont.	Corporation of Deseronto	Carburetted Water Gas	134
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Guelph, Ont.	Corporation of Guelph	C.W.G. and Coal Gas.	2925
		"	
		"	
		Coal Gas.	
		"	
		"	
		"	
		"	
		"	
Halifax, N.S.	Halifax Electric Tramway Co.	Coal Gas.	1457
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Hamilton, Ont.	United Gas & Fuel Co.	Coal Gas	552
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Kingston, Ont.	Corporation of Kingston.	Carburetted Water Gas	2723
		"	
		"	
		"	
		"	
		"	
		"	
		"	

† Testing apparatus not installed till August.

SESSIONAL PAPER No. 13

Calorimetric Tests made during the Fiscal Year ended March 31, 1916.

not established till July 1, 1915.

Calorimetric Values—Standard 520 British Thermal Units.

Month.	Number of Tests.		Highest B.T.U.	Lowest B.T.U.	Average B.T.U.		Readings below Standard.
	Prescribed.	Made.			Monthly.	Yearly.	
Aug., 1915††	2	2	635	531	583		0
Sept., 1915..	2	2	624	597	611		0
Oct., 1915..	2	2	616	559	588		0
Nov., 1915..	2	2	555	540	548		0
Dec., 1915..	3	2	582	568	575		0
Jan., 1916..	2	2	565	555	560		0
Feb., 1916..	2	2	562	544	553		0
Mar., 1916..	2	2	637	602	620	580	0
Aug., 1915††	2	2	683	617	650		0
Sept., 1915..	2	3	690	574	637		0
Oct., 1915..	2	2	659	659	659		0
Nov., 1915..	2	2	655	595	625		0
Dec., 1915..	3	2	620	552	586		0
Jan., 1916..	2	2	654	620	637		0
Feb., 1916..	2	2	599	551	575		0
Mar., 1916..	2	3	614	570	601	621	0
							0
July, 1915..	8	6	630	577	609		
Aug., 1915..	8	10	632	564	590		0
Sept., 1915..	10	10	663	595	622		0
Oct., 1915..	8	8	661	612	636		0
Nov., 1915..	8	8	632	596	623		0
Dec., 1915..	10	10	658	576	610		0
Jan., 1916..	8	8	637	576	611		0
Feb., 1916..	8	8	626	586	606		0
Mar., 1916..	10	10	637	605	620	614	0
July, 1915..	4	4	578	574	576		0
Aug., 1915..	4	4	578	570	576		0
Sept., 1915..	5	5	597	574	583		0
Oct., 1915..	4	4	579	565	572		0
Nov., 1915	4	4	585	566	578		0
Dec., 1915..	5	5	597	583	589		0
Jan., 1916..	4	4	600	564	588		0
Feb., 1916..	4	4	613	564	576		0
Mar., 1916..	5	4	578	550	564	578	0
July, 1915..	2	2	540	522	531		0
Aug., 1915..	2	2	538	525	532		0
Sept., 1915..	2	3	540	520	530		0
Oct., 1915..	2	2	558	535	547		0
Nov., 1915..	2	2	534	534	534		0
Dec., 1915..	3	2	525	520	523		0
Jan., 1916..	2	2	534	531	533		0
Feb., 1916..	2	2	540	530	535		0
Mar., 1916..	2	3	534	530	533	533	0
July, 1915..	8	8	650	604	637		0
Aug., 1915..	8	8	684	615	647		0
Sept., 1915..	10	10	700	606	647		0
Oct., 1915..	8	8	682	598	636		0
Nov., 1915..	8	8	620	586	604		0
Dec., 1915..	10	10	615	595	607		0
Jan., 1916..	8	8	642	587	610		0
Feb., 1916..	8	8	631	590	605		0
Mar., 1916..	10	10	611	577	589	621	0

RETURN of the Coal and Water Gas Companies registered and

NOTE:—Calorimetric Regulations

Company.			
Location.	Name.	Kind of Gas.	Number of Meters.
London, Ont.....	City Gas Co.....	C. W.G. and Coal Gas.	9269
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Montreal, P.Q.....	Montreal Light Heat & Power Co..... .. .	C.W.G. and Coal Gas..	98264
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Nanaimo, B.C..... ...	Nanaimo City Gas Co.....	Coal Gas	450
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Napanee, Ont.....	Napanee Gas Co.....	Coal Gas	388
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
New Westminster, B.C.	New Wesminster Gas Co.....	Coal Gas	382
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Oshawa, Ont....	City Gas Co....	Carburetted Water Gas	987
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	

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Calorimetric Tests made during the Fiscal Year ended March 31, 1916.

not established till July 1, 1915.

Calorimetric Values—Standard 520 British Thermal Units.

Month.	Number of Tests.		Highest B.T.U.	Lowest B.T.U.	Average B.T.U.		Readings below Standard.
	Prescribed.	Made.			Monthly.	Yearly.	
July, 1915..	12	12	573	545	561		0
Aug., 1915..	12	12	594	542	568		0
Sept., 1915..	15	12	617	571	594		0
Oct., 1915..	12	15	619	557	560		0
Nov., 1915..	12	12	622	547	570		0
Dec., 1915..	15	12	631	513	572		0
Jan., 1916..	12	15	593	542	563		0
Feb., 1916..	12	12	607	550	578		0
Mar., 1916..	15	15	592	533	563	570	0
July, 1915..	26	26	543	522	532		0
Aug., 1915..	26	26	562	521	542		0
Sept., 1915..	25	25	540	521	530		0
Oct., 1915..	25	25	544	521	532		0
Nov., 1915..	26	26	551	522	537		0
Dec., 1915..	26	26	541	522	531		0
Jan., 1916..	25	25	533	520	527		0
Feb., 1916..	25	25	538	521	529		0
Mar., 1916..	26	27	562	522	542	534	0
July, 1915	2	1	554	551	554		0
Aug., 1915	2	2	571	547	559		0
Sept., 1915	2	2	567	534	551		0
Oct., 1915	2	2	561	532	547		0
Nov., 1915	2	2	587	573	580		0
Dec., 1915	3	2	593	579	586		0
Jan., 1916	2	2	565	557	561		0
Feb., 1916	2	2	579	573	576		0
Mar., 1916	2	2	579	550	555	563	0
July, 1915	2	2	593	543	568		0
Aug., 1915	2	2	580	556	568		0
Sept., 1915	2	3	659	543	583		0
Oct., 1915	2	2	554	551	553		0
Nov., 1915	2	2	552	510	532		510
Dec., 1915	3	2	527	514	521		514
Jan., 1916	2	2	579	504	542		504
Feb., 1916	2	2	533	523	528		0
Mar., 1916	2	3	545	512	529	547	512
July, 1915	2	2	616	605	611		0
Aug., 1915	2	2	615	581	598		0
Sept., 1915	2	2	631	624	628		0
Oct., 1915	2	2	645	620	633		0
Nov., 1915	2	2	656	636	646		0
Dec., 1915	3	2	654	633	644		0
Jan., 1916	2	2	631	578	605		0
Feb., 1916	2	2	608	598	603		0
Mar., 1916	2	2	619	641	645	620	0
July, 1915	2	2	587	552	570		0
Aug., 1915	2	2	633	485	559		485
Sept., 1915	2	3	580	528	554		0
Oct., 1915	2	2	567	551	559		0
Nov., 1915	2	2	599	578	594		0
Dec., 1915	3	2	597	535	572		0
Jan., 1916	2	2	595	544	569		0
Feb., 1916	2	2	593	581	587		0
Mar., 1916	2	3	611	567	589	549	0

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RETURN of the Coal and Water Gas Companies registered and

NOTE: Calorimetric Regulations

Company.			
Location.	Name.	Kind of Gas.	Number of Meters.
Ottawa, Ont.	Ottawa Gas Co.	Coal Gas	11349
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
*Owen Sound, Ont.	Corporation of Owen Sound	Coal Gas.	1024
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Peterboro, Ont	Peterboro Light and Power Co	Carburetted Water Gas	1889
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Port Hope, Ont.	Port Hope Gas Co.	Coal Gas.	407
		"	
		"	
		"	
		"	
		"	
Quebec, P.Q.	Quebec Railway Light, Heat and Power Co.	Carburetted Water Gas	4937
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
St. Catharines, Ont.	Corporation of St. Catharines	Coal Gas.	483
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	

* Testing apparatus not installed till October.

SESSIONAL PAPER No. 13

Calorimetric Tests made during the Fiscal Year ended March 31, 1916.

not established till July 1, 1915.

Calorimetric Values—Standard 520 British Thermals Units.

Month.	Number of Tests.		Highest B.T.U.	Lowest B.T.U.	Average B.T.U.		Readings below Standard.
	Prescribed.	Made.			Monthly.	Yearly.	
July, 1915..	26	26	545	521	531		0
Aug., 1915..	26	26	577	508	543		508-515
Sept., 1915..	25	27	561	531	551		0
Oct., 1915..	25	23	561	523	539		0
Nov., 1915..	25	23	578	522	548		0
Dec., 1915..	26	27	572	520	542		0
Jan., 1916..	25	23	564	514	534		514-517
Feb., 1916..	25	24	555	523	538		0
Mar., 1916	26	23	558	524	540	541	0
Jnly, 1915..	4	2	661	635	648		0
Aug., 1915..	4	5	652	589	610		0
Sept., 1915 .	5	5	610	598	600		0
Oct., 1915 .	4	4	647	589	607		0
Nov., 1915.	4	4	603	551	578		0
Dec., 1915..	5	5	611	577	597		0
Jan., 1916.	4	4	627	569	592		0
Feb., 1916 .	4	4	630	581	609		0
Mar., 1916..	5	5	605	567	587	603	0
July, 1915..	4	2	582	553	568		0
Aug., 1915..	4	4	621	560	591		0
Sept., 1915..	5	5	634	544	596		0
Oct., 1915..	4	4	572	546	534		0
Nov., 1915..	4	4	557	528	544		0.
Dec., 1915..	5	5	600	522	551		0
Jan., 1916 .	4	4	560	531	549		0
Feb., 1916..	4	4	574	525	547		0
Mar., 1916..	5	5	552	519	537	557	519
Oct., 1915*.	2	1	628	628	628		0
Nov., 1915 .	2	2	691	627	659		0
Dec., 1915..	3	2	638	589	614		0
Jan., 1916..	2	2	638	632	635		0
Feb., 1916.	2	2	626	611	619		0
Mar., 1916..	2	3	656	631	646	633	0
July, 1915..	8	9	595	567	578		0
Aug., 1915..	8	8	584	566	575		0
Sept., 1915	10	9	567	549	558		0
Oct., 1915 .	8	8	574	541	561		0
Nov., 1915 .	8	9	576	550	563		0
Dec., 1915 .	10	9	587	550	571		0
Jan., 1916	8	8	598	542	570		0
Feb., 1916	8	8	587	556	572		0
Mar., 1916.	10	10	596	567	581	570	0
July, 1915 .	2	2	561	539	550		0
Aug., 1915 .	2	2	561	541	551		0
Sept., 1915 .	2	3	615	586	600		0
Oct., 1915 .	2	2	566	566	566		0
Nov., 1915 .	2	2	553	542	548		0
Dec., 1915.	3	2	538	527	533		0
Jan., 1916 .	2	2	540	536	538		0
Feb., 1916.	2	2	544	521	533		0
Mar., 1916.	2	3	559	537	545	551	0

RETURN of the Coal and Water Gas Companies registered and

NOTE :—Calorimetric Regulations

Company.			
Location.	Name.	Kind of Gas.	Number of Meters.
St. Hyacinthe, P.Q.....	La Cie. de Gaz, Electricité et Pouvoir	Carburetted Water Gas	533
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
St. John, N.B	St. John Railway Co..	Coal Gas.	1841
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
St. Thomas, Ont.....	Corporation of St. Thomas	Coal Gas.	3204
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Sherbrooke, P.Q..... .	Corporation of Sherbrooke	Carburetted Water Gas	780
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Stratford, Ont.....	Stratford Gas Co.....	Coal Gas.	1353
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Toronto, Ont	Consumers Gas Co.....	C.W.G. and Coal Gas..	101056
		"	
		"	
		"	
		"	
		"	
		"	
		"	

SESSIONAL PAPER No. 13

Calorimetric Tests made during the Fiscal Year ended March 31, 1916.

not established till July 1, 1915.

Calorimetric Values—Standard 520 British Thermal Units.

Month.	Number of Tests.		Highest B.T.U.	Lowest B.T.U.	Average B.T.U.		Readings below Standard.
	Prescribed.	Made.			Monthly.	Yearly.	
July, 1915..	2	2	574	529	552		0
Aug., 1915..	2	2	560	524	542		0
Sept., 1915..	2	2	573	511	542		511
Oct., 1915	2	2	563	529	541		0
Nov., 1915..	2	2	532	510	521		510
Dec., 1915..	3	2	529	518	524		518
Jan., 1916..	2	2	495	492	494		492-495
Feb., 1916..	2	2	531	527	529		0
Mar., 1916..	2	2	550	536	543	532	0
July, 1915..	4	4	640	592	621		0
Aug., 1915..	4	4	660	576	620		0
Sept., 1915..	5	4	590	575	580		0
Oct., 1915..	4	4	609	564	584		0
Nov., 1915..	4	4	597	557	572		0
Dec., 1915..	5	4	601	578	592		0
Jan., 1916..	4	4	576	562	569		0
Feb., 1916..	4	4	581	550	569		0
Mar., 1916..	5	4	606	585	596	589	0
July, 1915	8	7	684	600	613		0
Aug., 1915..	8	8	674	615	636		0
Sept., 1915	10	8	700	631	662		0
Oct., 1915.	8	10	653	613	644		0
Nov., 1915	8	8	642	609	619		0
Dec., 1915..	10	8	625	578	607		0
Jan., 1916	8	10	610	568	591		0
Feb., 1916	8	8	604	573	642		0
Mar., 1916..	10	10	610	573	588	622	0
July, 1915	2	2	688	662	675		0
Aug., 1915	2	2	682	638	660		0
Sept., 1915	2	2	687	622	655		0
Oct., 1915	2	2	665	618	642		0
Nov., 1915	2	2	698	648	670		0
Dec., 1915	3	2	689	685	687		0
Jan., 1916	2	2	689	585	687		0
Feb., 1916	2	2	616	521	570		0
Mar., 1916	2	2	616	587	602	629	0
July, 1915	4	4	641	560	625		0
Aug., 1915	4	4	650	602	626		0
Sept., 1915	5	4	635	594	607		0
Oct., 1915	4	5	628	585	620		0
Nov., 1915	4	4	620	579	607		0
Dec., 1915	5	4	645	568	605		0
Jan., 1916	4	5	630	597	615		0
Feb., 1916	4	4	624	606	615		0
Mar., 1916	5	5	609	582	596		0
July, 1915	26	26	594	554	573	617	0
Aug., 1915	25	24	580	545	569		0
Sept., 1915	25	24	580	548	561		0
Oct., 1915	25	25	601	553	574		0
Nov., 1915	26	24	611	574	588		0
Dec., 1915	25	25	620	567	589		0
Jan., 1916	26	24	604	566	590		0
Feb., 1916	25	24	597	580	588		0
Mar., 1916	26	24	610	549	580	574	0

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RETURN of the Coal and Water Gas Companies registered and

NOTE: Calorimetric Regulations

Location.	Company. Name.	Kind of Gas.	Number of Meters.
Vancouver, B.C.	Vancouver Gas Co	Coal Gas.	14334
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Victoria, B.C.	Victoria Gas Co	Coal Gas.	3645
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Waterloo, Ont	Corporation of Waterloo	Carburetted Water Gas	649
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Winnipeg, Man	Winnipeg Electric Railway Co.	Coal Gas.	18009
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	
Yarmouth, N.S.	Yarmouth Gas Light Co	Coal Gas.	275
		"	
		"	
		"	
		"	
		"	
		"	
		"	
		"	

SESSIONAL PAPER No. 13

Calorimetric Tests made during the Fiscal Year ended March 31, 1916.

not established till July 1, 1915.

Calorimetric Values—Standard 520 British Thermal Units.

Month.	Number of Tests.		Highest B.T.U.	Lowest B.T.U.	Average B.T.U.		Readings below Standard.
	Prescribed.	Made.			Monthly.	Yearly.	
July, 1915..	26	24	556	507	535		507
Aug., 1915..	25	24	575	520	541		0
Sept., 1915..	25	23	590	512	540		512
Oct., 1915..	25	23	583	533	555		0
Nov., 1915..	26	24	603	534	556		0
Dec., 1915..	26	28	587	527	550		0
Jan., 1916..	26	24	560	520	543		0
Feb., 1916..	25	24	567	463	540		463–512
Mar., 1916..	26	30	579	504	542	545	504
July, 1915..	8	9	558	523	535		0
Aug., 1915..	8	8	558	520	536		0
Sept., 1915..	10	9	549	524	537		0
Oct., 1915..	8	8	563	530	547		0
Nov., 1915..	8	8	561	530	544		0
Dec., 1915..	10	9	552	529	545		0
Jan., 1916..	8	8	558	526	539		0
Feb., 1916..	8	9	564	525	544		0
Mar., 1916..	10	8	551	529	539	541	0
July, 1915..	2	2	570	568	569		0
Aug., 1915..	2	2	572	570	571		0
Sept., 1915..	2	3	539	525	534		0
Oct., 1915..	2	2	569	550	560		0
Nov., 1915..	2	2	573	522	548		0
Dec., 1915..	3	2	601	551	576		0
Jan., 1916..	2	2	564	537	551		0
Feb., 1916..	2	2	571	536	554		0
Mar., 1916..	2	3	568	552	557	558	0
July, 1915..	26	20	598	527	560		0
Aug., 1915..	26	25	581	532	556		0
Sept., 1915..	25	27	601	537	569		0
Oct., 1915..	25	23	612	536	572		0
Nov., 1915..	26	24	596	541	569		0
Dec., 1915..	26	29	586	541	564		0
Jan., 1916..	25	23	565	520	543		0
Feb., 1916..	25	30	597	521	559		0
Mar., 1916..	26	26	576	528	553	557	0
July, 1915..	2	2	645	639	642		0
Aug., 1915..	2	2	618	595	607		0
Sept., 1915..	2	2	621	612	617		0
Oct., 1915..	2	2	633	628	631		0
Nov., 1915..	2	2	579	558	569		0
Dec., 1915..	3	3	670	563	616		0
Jan., 1916..	2	2	691	691	691		0
Feb., 1916..	2	2	586	561	570		0
Mar., 1916..	2	2	691	554	623	603	0

RETURN of the Natural Gas Companies Registered during the Fiscal Year ended March 31, 1916.

Location.	Name.	Number of Meters.
Brantford, Ont.	Brantford Gas Co.	4662
Bridgeburg, Ont.	Provincial Natural Gas and Fuel Co.	596
Cainsville, Ont.	Standard Natural Gas Co.	100
Caledonia, Ont.	Port Colborne-Welland Natural Gas and Oil Co.	451
Calgary, Alta.	Calgary Gas Co.	6646
Castor, Alta.	Corporation of Castor.	40
Chatham Ont.	Chatham Gas Co.	2939
Delhi, Ont.	Enterprise Gas Co.	234
Dundas, Ont.	Dominion Natural Gas Co.	1000
Dunnville, Ont.	Dominion Natural Gas Co.	1775
Ford, Ont.	Windsor Gas Co.	275
Fort Erie, Ont.	Provincial Natural Gas & Fuel Co.	440
Fort Erie, Ont.	Lake Shore Natural Gas Co.	235
Galt, Ont.	Dominion Natural Gas Co.	1827
Haldimand County, Ont.	Midfield Natural Gas Co.	37
Hamilton, Ont.	Manufacturers Natural Gas Co.	149
Hamilton, Ont.	United Gas and Fuel Co.	15189
Ingersoll, Ont.	Ingersoll Gas Light Co.	868
Medicine Hat, Alta.	Corporation of Medicine Hat	2560
Moncton, N.B.	Moncton Tramways Electricity & Gas Co.	2106
Niagara Falls, Ont.	Provincial Natural Gas & Fuel Co.	3235
Paris, Ont.	Dominion Natural Gas Co.	775
Port Colborne, Ont.	Sterling Gas Co.	934
Port Colborne, Ont.	Welland County Lime Works Co.	81
Port Dover, Ont.	Norfolk Gas Co.	396
Port Rowan, Ont.	Port Rowan Natural Gas Co.	189
Redcliff, Alta.	Redcliff Light and Power Co.	366
Ridgeway, Ont.	Bertie Natural Gas Co.	189
St. Catharines, Ont.	United Gas Companies.	2470
St. Williams, Ont.	Port Rowan Natural Gas Co.	100
Sandwich, Ont.	Windsor Gas Co.	280
Sandwich East, Ont.	Windsor Gas Co.	20
Sandwich West, Ont.	Windsor Gas Co.	100
Sarnia, Ont.	Sarnia Gas & Electric Light Co.	2946
Simcoe, Ont.	Dominion Natural Gas Co.	2100
Suffield, Alta.	Southern Alberta Gas Co.	52
Southern Alberta.	Canadian Western Natural Gas, Light, Heat and Power Co.	1119
Thorold, Ont.	United Gas Companies.	800
Walkerville, Ont.	Windsor Gas Co.	855
Welland, Ont.	Industrial Natural Gas Co.	101
Welland, Ont.	Provincial Natural Gas & Fuel Co.	2115
Windsor, Ont.	Windsor Gas Co.	4970
Woodstock, Ont.	Woodstock Gas Light Co.	1668

ORMOND HIGMAN,
Chief Engineer, Gas and Electricity Inspection, Inland Revenue Dept.

J. U. VINCENT,
Deputy Minister.

July 1, 1916.

APPENDIX G.

STATEMENT showing the number of Gas Meters Presented for Verification, Verified, Rejected and Verified after first Rejection, for the Fiscal Year ended March 31, 1916.

Districts.	Presented for Verification.	Kind.		Verified as coming within the error tolerated by law.			Rejected.			Verified after first Rejection.			Totals.	
		Wet.	Dry.	Correct.	Fast.	Slow.	Unsound.	Fast.	Slow.	Correct.	Fast.	Slow.	Verified.	Rejected.
Belleville	1,254	...	1,254	302	212	702	..	20	18	....	....	....	1,216	38
Hamilton	9,231	...	9,231	5,110	729	3,392	...	...	..	...	....	....	9,231	..
London	10,054	.	10,054	2,407	1,515	6,105	....	16	11	....	..	..	10,027	27
Ottawa	3,019	...	3,019	652	279	2,087	..	...	1	....	....	....	3,018	1
Toronto	16,292	...	16,292	5,469	1,378	9,344	....	55	46	...	....	..	16,191	101
Montreal	10,913	..	10,913	2,292	3,421	5,065	23	81	31	..	...	...	10,778	135
Quebec	804	...	804	496	31	277	...	....			..	..	804	.
Sherbrooke	207	...	207	93	54	60	....	..	..	...	...	..	207	..
St. Hyacinthe	79	...	79	19	14	43	....	1	2	....	..	...	76	3
St. John	626	..	626	334	21	271	...	..	....	..	..	..	624	...
Halifax	574	...	574	238	62	274	...	....	..	..	....	...	574	..
Charlottetown	24	...	24	4	9	6	...	2	3	...	..	..	19	5
Winnipeg	2,958	..	2,958	1,605	862	481	...	7	1	1	1	...	2,948	10
Calgary	1,588	....	1,588	185	91	1,282	...	30	.	...	..		1,558	30
Vancouver	1,592	...	1,592	460	485	631	1	7	8	..	...	.	1,576	16
Victoria	388	..	388	113	134	141	...	.	...	..	..	..	388	.
Totals	59,603	...	59,603	19,779	9,297	30,161	24	219	121	1	1	.	59,237	366

APPENDIX H.

STATEMENT of Electric Light Expenditures and Revenues for the Fiscal Year ended March 31, 1916.

Districts.	Inspectors.	Expenditures.						Revenues.
		Salaries.	Special Assistance.	Rent	Travelling Expenses.	Sundries.	Total.	
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Belleville	Fraser, H.	1,930 45	36 00	.....	365 40	14 88	2,346 73	2,186 35
Fort William	Little, E.	1,399 92	20 00	.....	183 35	77 42	1,680 69	518 35
Hamilton	Lutz, H.	.....	.....	.....	539 80	.....	539 80	5,476 95
London	Nash, A. F.	.....	75 00	.....	553 85	125 70	754 55	6,715 35
Ottawa	Morrison, A. C	.....	.....	.....	554 90	.....	554 90	4,771 95
Sudbury	Code, A. G.	386 09	.....	.....	307 80	40 80	734 69	565 95
Toronto	Stiver, J. L.	.....	.....	.....	845 75	51 89	897 64	12,448 30
Special	Kinsman, E. A	1,425 00	.....	.....	.....	.....	1,425 00	.....
	Ontario	5,141 46	131 00	.....	3,350 85	310 69	8,934 00	32,683 20
Montreal	Aubin, A.	.....	1,766 02	.....	148 95	35 75	1,950 72	11,219 20
Quebec	Cantin, J.A., Actg.	.....	2,276 63	600 00	214 80	265 56	3,356 99	1,907 65
Sherbrooke	Simpson, A. F.	.....	.....	.....	175 61	8 50	184 11	832 50
St. Hyacinthe	Aubin, A. Actg.	550 00	.....	.....	276 05	3 00	829 05	900 60
Three Rivers	Olivier, A.	499 92	.....	195 00	173 95	15 80	884 67	956 00
	Quebec.	1,049 92	4,042 65	795 00	989 36	328 61	7,205 54	15,815 95
St. John, N.B.	Wilson, J. E.	.....	12 00	.....	265 12	26 49	303 61	1,582 65
Halifax, N.S.	Toale, John	.....	60 00	.....	1,033 50	271 77	1,365 27	2,224 60
Charlottetown, P.E.I.	Bell, J. H.	.....	60 00	.....	41 95	22 82	124 77	165 30
Winnipeg, Man	Hamilton, R.	.....	.....	600 00	201 70	775 96	1,577 66	3,952 70
Regina, Sask.	Hunter, W. M.	2,499 96	.....	.....	1,680 00	182 75	4,362 71	2,304 70
Calgary	Kyle, W. P.	2,200 00	21 00	.....	361 45	98 64	2,681 09	2,129 70
Edmonton	Cantin, A. J.	1,299 96	.....	.....	313 65	105 80	1,719 41	890 40
	Alberta.	3,499 96	21 00	.....	675 10	204 44	4,400 50	3,020 10
Vancouver	Stott, John	6,599 76	900 00	.....	309 53	256 09	8,065 38	6,948 95
Victoria	Dresser, F.	.....	48 00	.....	123 50	84 08	255 58	1,353 60
	British Columbia	6,599 76	948 00	.....	433 03	340 17	8,320 96	8,302 55
Yukon	Stingle, J. W.	499 92	.....	.....	.....	.....	499 92	.....
Chief Electrical Engineer		.....	.....	.....	4 00	372 02	376 02	.....
Inspector of Eastern Division		.....	.....	.....	82 55	5 00	87 55	.....
" Western "		2,599 92	833 30	.....	41 25	461 50	3,935 97	.....
Total for Inspectors		21,890 90	6,107 95	1,395 00	8,798 41	3,302 22	41,494 48	70,051 75

APPENDIX H.—*Concluded.*

STATEMENT of Electric Light Expenditures and Revenues for the Fiscal Year ended March 31, 1916—*Concluded.*

—	Expenditures.						Revenues.
	Salaries.	Special Assistance.	Rent.	Travelling Expenses.	Sundries.	Total.	
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
General Contingencies					13,512 29	13,512 29	
Printing					98 75	98 75	
Stationery					141 40	141 40	
International Electro-Technical Commission					400 00	400 00	
Provisional allowance					2,152 35	2,152 35	
Export of Electric Power					44 10	44 10	400 00
Electric Laboratory							110 50
Grand totals	21,890 90	6,107 95	1,395 00	8,798 41	19,651 11	57,843 37	70,562 25

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX I.

STATEMENT showing the number of Electric Meters Presented for Verification, Verified, Rejected and Verified after first Rejection, for the fiscal year ended March 31, 1916.

Districts.	Presented for Verification.	Verified as coming within the error tolerated by law.			Rejected.			Verified after first Rejection.			Totals.	
		Correct.	Fast.	Slow.	Unnamed.	Fast.	Slow.	Correct.	Fast.	Slow.	Verified.	Rejected.
Belleville	3,103	525	1,788	1,089		1					3,402	1
Fort William	819	55	591	167		5	1				813	6
Hamilton	8,901	6,644	487	1,770							8,901	
London	10,656	3,585	3,300	3,366		4	1				10,651	5
Ottawa	7,752	1,957	3,703	2,928		2	2				7,748	4
Sudbury	914	248	282	381			3				911	3
Toronto	19,004	11,896	4,380	2,713		57	10				18,989	15
Montreal	18,485	11,084	1,159	3,242							18,485	
Quebec	3,133	2,361	492	280							3,133	
Sherbrooke	1,354	325	340	675			4				1,340	4
St. Hyacinthe	1,481	596	433	449		1	2				1,478	3
Three Rivers	1,575	1,477	56	40			2				1,573	2
St. John	2,606	1,168	701	729		6	2				2,598	8
Halifax	3,661	2,312	779	521		24	28				3,612	52
Charlottetown	270	110	60	97		1	2				267	3
Winnipeg	6,230	1,782	4,015	431		1	1				6,228	2
Regina	3,812	466	2,586	720		5	35				3,773	40
Calgary	3,478	1,581	1,616	257		6	18				3,454	24
Edmonton	1,449	512	826	96		7	8				1,441	15
Vancouver	11,337	3,981	5,981	1,41		13	11				11,311	24
Victoria	2,139	677	938	523		1					2,138	1
Totals	112,462	52,892	37,512	21,886		82	130				112,250	212

INLAND REVENUE DEPARTMENT,
OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

APPENDIX J.

STATEMENT showing amount of Electrical Energy, Gas or Fluid generated or produced for export and for consumption in Canada, under the authority of the Electricity and Fluid Exportation Act, for the year ending March 31st, 1916.

Name of Contractor and Place of Business.	Month.	Units Produced for export.		Units Produced for use in Canada.		Total Output of Generating Station or other Source.	
		K. W. Hours.	H. P. Years.	K. W. Hours.	H. P. Years.	K. W. Hours.	H. P. Years.
Canadian Niagara Power Company, Niagara Falls, Ont.	April	30,071,552	4,601·64	709,448	108·56	30,781,000	4,710·20
	May	31,427,736	4,809·17	649,264	99·35	32,077,000	4,908·52
	June	29,807,321	4,561·21	717,679	109·82	30,525,000	4,671·03
	July	31,294,785	4,788·84	842,215	128·86	32,137,000	4,917·70
	August	32,350,500	4,950·38	919,500	140·70	33,270,000	5,091·08
	September	34,805,076	5,325·98	772,924	118·28	35,578,000	5,444·26
	October	36,536,514	5,590·93	797,486	122·03	37,334,000	5,712·96
	November	35,721,276	5,466·19	951,724	145·63	36,673,000	5,611·82
	December	35,516,986	5,434·92	1,263,014	193·27	36,780,000	5,628·19
	January	35,846,332	5,485·32	1,224,668	187·40	37,071,000	5,672·72
	February	33,552,908	5,134·37	1,197,092	183·18	34,750,000	5,317·55
	March	33,590,104	5,140·06	1,133,896	173·51	34,724,000	5,313·57
	Totals	400,521,090	61,289·01	11,178,910	1,710·59	411,700,000	62,999·60
Electrical Development Company, Niagara Falls, Ont. Leased by Toronto Power Company.	April			25,681,650	3,929·89	25,681,650	3,929·89
	May			24,972,650	3,821·39	24,972,650	3,821·39
	June			24,545,000	3,755·95	24,545,000	3,755·95
	July			23,985,700	3,670·37	23,985,700	3,670·37
	August			23,981,800	4,669·77	23,981,800	3,669·77
	September			24,154,600	3,696·12	24,154,900	3,696·12
	October	2,030,000	310·64	25,329,600	3,876·01	27,389,600	4,186·65
	November	5,816,000	889·98	57,253,300	8,761·08	63,069,300	9,651·06
	December	6,808,000	1,041·78	41,420,000	6,353·52	48,328,000	7,395·30
	January	6,479,000	991·44	41,930,900	6,416·40	48,409,900	7,407·84
	February	6,617,000	1,012·55	39,674,000	6,071·04	46,291,000	7,083·59
	March	6,902,000	1,056·17	42,317,000	6,475·48	49,219,000	7,531·65
	Totals	34,652,000	5,302·56	395,346,500	60,497·02	129,998,500	65,799·58
Ontario Power Company, Niagara Falls, Ontario.	April	12,734,320	1,948·49	39,035,580	5,973·35	51,768,900	7,921·84
	May	14,768,300	2,259·89	45,004,700	6,886·76	59,773,000	9,146·65
	June	16,317,940	2,497·02	43,372,760	6,637·04	59,690,700	9,134·06
	July	17,316,400	2,649·81	46,641,300	7,137·20	63,957,700	9,787·01
	August	20,453,900	3,129·92	47,441,000	7,259·57	67,894,900	10,389·49
	September	22,506,260	3,443·98	50,271,740	7,692·74	72,778,000	11,136·72
	October	18,557,660	2,839·74	54,983,040	8,413·66	73,540,700	11,253·40
	November	17,801,980	2,724·12	52,696,020	8,063·71	70,498,000	10,787·83
	December	17,645,700	2,700·20	59,517,400	9,107·54	77,163,100	11,807·74
	January	12,117,160	1,854·21	58,608,640	8,968·47	70,725,800	10,822·68
	February	13,318,640	2,038·06	57,514,860	8,770·50	70,833,500	10,808·56
	March	15,597,960	2,386·84	61,947,400	9,479·39	77,545,300	11,866·23
	Totals	199,135,160	30,472·28	616,834,440	94,389·93	815,969,600	124,862·21

APPENDIX J.—*Continued*

STATEMENT showing amount of Electrical Energy, Gas or Fluid generated, etc.—*Continued.*

Name of Contractor and Place of Business.	Month.	Units Produced for Export.		Units Produced for use in Canada.		Total Output of Generating Station or Other Source.	
		K. W. Hours.	H. P. Years.	K. W. Hours.	H. P. Years.	K. W. Hours.	H. P. Years.
Ontario and Minnesota Power Co., Fort Frances, Ont.	April	883,370	135·17	822,720	125·90	1,706,090	261·07
	May	928,930	142·15	748,660	114·56	1,677,590	256·71
	June	701,950	107·41	875,130	133·92	1,577,080	241·33
	July	1,003,460	153·55	948,030	145·07	1,951,490	298·62
	August	1,309,410	200·37	948,340	145·12	2,257,750	345·49
	September	1,140,120	174·46	881,892	134·95	2,022,012	309·41
	October	1,029,370	157·52	938,818	143·66	1,968,188	301·18
	November	1,004,129	153·65	956,934	146·43	1,961,054	300·08
	December	1,286,080	196·80	1,105,640	169·19	2,391,720	365·99
	January	1,328,340	203·27	1,221,880	186·97	2,550,220	390·24
	February	1,241,910	190·04	1,144,580	175·15	2,386,490	365·19
	March	1,287,010	196·94	1,196,910	183·16	2,483,920	380·10
	Totals	13,144,070	2,011·33	11,789,534	1,804·08	24,933,604	3,815·41
Cedar Rapids Power Co., Montreal, Quebec.	April	21,381,000	3,271·79	1,287,000	196·94	22,668,000	3,468·73
	May	27,052,000	4,139·58	Nil.	Nil.	27,052,000	4,139·58
	June	27,177,000	4,158·71	178,000	27·24	27,355,000	4,185·95
	July	28,880,000	4,419·31	Nil.	Nil.	28,880,000	4,419·31
	August	28,223,000	4,318·77	4,106,000	628·31	32,329,000	4,947·08
	September	33,932,000	5,192·38	6,285,000	961·75	40,217,000	6,154·13
	October	36,019,000	5,511·74	5,241,000	801·99	41,260,000	6,313·73
	November	35,664,000	5,457·42	7,568,000	1,158·08	43,232,000	6,615·50
	December	35,983,000	5,506·23	10,804,000	1,653·20	46,787,000	7,159·43
	January	27,259,000	4,171·26	7,375,000	1,128·54	34,634,000	5,299·80
	February	27,200,000	4,162·23	4,945,000	756·70	32,145,000	4,918·93
	March	29,983,000	4,588·09	8,242,000	1,261·22	38,225,000	5,849·31
	Totals	358,753,000	54,897·51	56,031,000	8,574·05	414,784,000	63,471·54
Sherbrooke Railway & Power Co., Sherbrooke, Que.	April	18,800	2·88	685,000	104·82	703,800	107·70
	May	18,600	2·85	745,000	114·03	763,600	116·87
	June	16,200	2·48	682,800	104·48	699,000	106·96
	July	15,720	2·41	698,400	106·87	714,120	109·28
	August	18,640	2·84	710,000	108·63	728,640	111·49
	September	15,700	2·40	703,000	107·58	718,700	109·98
	October	19,000	2·91	725,000	110·94	744,000	113·85
	November	19,200	2·94	740,000	113·24	759,200	116·18
	December	22,400	3·43	776,000	118·74	798,400	122·17
	January	21,400	3·27	704,000	107·88	725,400	111·14
	February	21,700	3·32	670,000	102·53	691,700	105·85
	March	24,500	3·60	765,000	117·09	789,500	120·69
	Totals	230,860	35·33	8,049,200	1,316·79	8,580,060	1,352·12

APPENDIX J.—*Continued.*

STATEMENT showing amount of Electrical Energy, Gas, or Fluid generated, etc.—*Continued.*

Name of Contractor and Place of Business.	Month.	Units Produced for Export.		Units Produced for use in Canada.		Total Output of Generating Station or Other Source.	
		K. W. Hours.	H. P. Years.	K. W. Hours.	H. P. Years.	K. W. Hours.	H. P. Years.
Maine and New Brunswick Power Co., Aroostook Falls, N. B.	April.....	239,411	36·64	18,889	2·89	258,300	39·53
	May.....	229,502	35·12	16,998	2·60	246,500	37·72
	June.. ..	224,020	34·28	17,680	2·71	241,700	36 99
	July.....	224,077	34·29	19,023	2·91	243,100	37·20
	August.....	200,662	30·71	18,238	2·79	218,900	33·50
	September..	256,324	39·22	20,203	3 09	276,527	42·31
	October ...	284,952	43·00	19,548	2·99	304,500	46·59
	November..	273,281	41 82	22,519	3·44	295,800	45 26
	December ..	290,607	44·47	22,293	3·41	312,900	47·88
	January..	298,950	45·75	22,350	3·42	321,300	49·17
	February...	269,499	41·24	21,501	3·29	291,000	44·53
	March.....	284,608	43 55	23,195	3·55	307,803	47 10
	Totals....	3,075,893	470 69	242,437	37·0	3,318,330	507·78
Western Canada Power Co., Vancouver, B. C.	April.. ...	995,400	152·32	4,926,210	753·82	5,921,610	906·14
	May..	1,493,960	228·60	5,378,830	823·09	6,872,730	1,051·69
	June.. ...	602,100	92·14	5,006,330	766·08	5,508,430	858 22
	July.. ..	418,000	63·96	5,238,770	801·65	5,656,770	865 61
	August.....	815,100	124·73	5,055,740	773·64	5,870,840	898·37
	September..	1,559,100	238·57	5,124,360	784·15	6,683,460	1,022·72
	October ..	1,852,400	283·46	5,199,850	795·70	7,052,250	1,079·16
	November. .	1,304,600	199·63	4,901,520	750 05	6,266,120	949 68
	December ..	987,300	151·08	5,056,510	773·76	6,043,81	924·84
	January....	1,329,100	203·38	5,035,210	770 50	6,364,310	973·88
	February. .	303,600	46·46	4,584,290	701·50	4,887,890	747·96
	March.....	277,100	42·40	4,960,400	759·06	5,237,500	801·46
	Totals....	11,937,700	1,826·73	63,468,020	9,253·00	72,405,720	11,079·73
British Columbia Electric Railway Co., Vancouver, B. C.	April.....	23,290	3·56	5,064,910	775·05	5,088,200	778·61
	May.....	20,960	3·21	4,929,340	754·30	4,950,300	757·51
	June.....	20,394	3·12	4,711,106	720·91	4,731,500	724·03
	July.....	22,477	3·44	4,785,82	732·34	4,808,300	735·78
	August. ...	30,944	4·74	5,270,456	806 50	5,301,400	811·24
	September..	29,635	4·53	5,329,780	815·59	5,359,415	820·12
	October	33,994	5·20	5,992,006	917·68	6,031,000	922·88
	November. .	34,025	5·21	6,433,87	984 53	6,467,900	989·74
	December ..	35,000	5·35	6,916,200	1,058·34	6,951,200	1,063·69
	January....	30,457	4 66	6,479,243	991 47	6,509,700	996·13
	February...	25,195	3·86	6,101,905	933 73	6,127,100	937·59
	March.....	24,255	3·71	6,451,045	987·16	6,475,300	990·87
	Totals ...	330,626	50·59	68,470,689	10,477·60	68,801,315	10,528·19

APPENDIX J—*Concluded.*

RECAPITULATION.

Name of Contractor and Place of Business.	Units Produced for Export.		Units Produced for use in Canada.		Total Output of Generating Station or other Source.	
	K.W. Hours.	H.P. Years.	K.W. Hours.	H.P. Years.	K.W. Hours.	H.P. Years.
Canadian Niagara Power Co....	400,521,090	61,289·01	11,178,910	1,716·59	411 700,000	62,999 60
Electrical Development Co.....	34,652,000	5,302·56	395,346,500	60,497 02	429,998,500	65,799 58
Ontario Power Co.....	199,135,160	30,472·28	616,834,440	94,389 93	815,969,600	124,862 21
*International Railway Co...	.....	.....	.....	.....	.....	.....
Ontario and Minnesota Power Co	13,144,070	2,011.33	11,789,534	1,804·08	24,933,604	3,815 41
Cedar Rapids Power Co.....	358,753,000	54,897·51	56,031,000	8,574·05	414,784,000	63,471 54
Sherbrooke Railway and Power Co	230,820	35·33	8,605.200	1,316 79	8,836,020	1,352 12
Maine and New Brunswick Power Co	3,075,893	470·69	242,437	37 09	3,318,330	507 78
Western Canada Power Co	11,937,700	1,826 73	60,468,020	9,253 00	72,405,720	11,079 73
British Columbia Electric Railway Company.....	330,626	50·59	68,470,689	10,477 60	68,801,315	10,528 19
Totals	1,021,780,359	156,356·03	1,228,966,730	188,060 13	2,250,747,089	344,416 16

*This Company's load is used for Electric Railway supply, chiefly on Canadian side of boundary.

J. U. VINCENT,
Deputy Minister.

ELECTRICAL BRANCH,
INLAND REVENUE DEPARTMENT,

ORMOND HIGMAN,
Chief Engineer.

OTTAWA, July 1, 1916.

APPENDIX K.

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, during the Fiscal Year ended March 31, 1916.

District.	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Meters.	
			Type.	Horse Power.				Power.	Lighting.	Power.	Lighting.
Belleville, Ont..	Brockville Light Commissioners.	Brockville	Steam	1,000	3	60	2,200	550	110	28	1,030
	Benjamin Wheel Company	Yarker	Water	40			125		125		
	Board of Water, Light and Power Comm.	Fenelon Falls	Water	600	3	60	550	550	110		
	Campbellford Water and Light Comm.	Campbellford	Water	3,450	3	60	2,400	2,200	110		1
	Cardinal Electric Company Limited.	Cardinal		165	3	60	240	240	110		50
	Central Ontario Power Company.	Millbrook	Purchased		3	60		220	110	2	98
	Cobourg Water and Electric Company.	Cobourg	Purchased		3	60		220	110	25	531
	Electric Light Commission	Bobcayeon	Water	200	3	60	2,200		110		
	Frankford Electric Light Company.	Frankford	Water	150	2	60	2,000		110		79
	Fair & Mullet	Bancroft	Steam	75			125	125	125		
	Fowlds Company Limited	Hastings	Water	100	2	60	2,200		110		6
	J. H. Goodrich	Warkworth	Water	80	2	60	2,200	110	110		
	Gananoque Electric Light Company.	Gananoque	Water	500		DC.	250	250	115	26	407
	W. C. Harrison	Norwood	Steam	75	1	133	1,000		110		
	Havelock Electric Light Company.	Havelock	Water	135	3	60	4,400		110		
	Kemptville Milling Company Limited.	Kemptville		300	3	60	10,000	220	110		
	Light, Heat and Power Company.	Lindsay	Water	1,500	3	60	550	220	110	3	1,125
	Light and Water Commission.	Picton	Steam	300	2	60	2,200	220	110	5	594
	Light, Heat and Power Department.	Kingston	Steam	1,800	3	60	2,300	220	110	102	1,846
	Lakefield Electric Light Company.	Lakefield	Water	125	3	60	2,200	550	110	1	

	Marmora Electric Light Plant	Marmora	Water	100	1	60	1,000		110		1
	Municipality of Madoc Village	Madoc Village	Purchased								1
	W. P. Niles, Limited	Wellington	Gas	75		DC.	500	500	250	1	3
	Ottawa Power Company Limited	Peterborough	Water	900	3	60	6,600	2,200	110	1	8
	Oshawa Electric Light Company	Oshawa	Purchased		3	60		550	110	40	1,140
	G. M. Peebles	Colborne	Purchased		3	60			110	2	138
	Port Hope Electric Light Company	Port Hope	Water	220	3	60	2,200	550	110	15	665
	Peterborough Utilities Commission	Peterborough	Purchased		3	60		550	110	26	2,600
	Prescott Hydro-Electric Commission	Prescott	*H.E.P.		3	60		220	110	10	400
	W. G. Stephenson	Omemee	Water	90		DC.	350	220	220		1
	Seymour Power and Electric Company	Orono	Trans. Line		3	60		220	110	3	111
	Sterling, Corporation of	Sterling	Purchased	240	1	60		240	120		1
	Seymour Power and Electric Company	Whitby	Trans. Line		3	60		220		2	
	Seymour Power and Electric Company	Napanee	Steam	300	3	60	2,300	550	110	16	600
	Seymour Power and Electric Company	Bowmanville	Trans. Line		3	60		550	110	10	620
	Seymour Power and Electric Company	Newcastle	Trans. Line		3	60		220	110	1	134
	Trenton Electric and Water Company	Trenton	Water	5,000	3	60	6,600	220	115	40	600
	Trenton Electric and Water Company	Belleville	Trans. Line		3	60		240	120	57	1,405
	Trenton Electric and Water Company	Brighton	Trans. Line		3	60		220	110	8	325
	Trenton Electric and Water Company	Desoronto	Trans. Line		3	60		550	110	7	160
	Tweed Electric Light and Power Co	Tweed	Water	125	1	133	2,080	550	110	11	185
Fort William, Ont.	Dryden Timber and Power Company, Ltd.	Dryden	Water	2,000	3	60	600	600	110		
	Dryden, Municipality of	Dryden	Purchased		3	60		550	110		
	Fort William Light Department	Fort William	Purchased	1,750	3	60		250	110	38	4,243
	Fort Frances, Corporation of	Port Frances	Water	6,860	3	60	6,600	220	110	5	430
	Kaministiquia Power Company, Limited	Fort William	Water	25,000	3	60	4,400	2,200			
	Kenora, Corporation of	Kenora	Water	3,296	3	60	2,400	220	110	8	291
	R. C. McMahon & Company	Mine Centre	Oil	6		DC.	70		50		

*Hyde-Electric Force.

APPENDIX K.

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, etc.—*Continued*

District.	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Meters	
			Type.	Horse Power.				Power.	Lighting.	Power.	Lighting.
Fort William, Ont.—*Con.*	Ontario and Minnesota Power Co., Ltd.	Fort Frances	Water	6,800	3	60	6,600	6,600	110	6	
	Public Utilities Commission	Port Arthur	H.E.P.	3,000	3	60		2,200	110	16	3,450
	Rainy River Electric Light and Power Co.	Rainy River	Steam	150	2	133	2,080	104	104		200
Hamilton, Ont.	Acton, Corporation of	Acton	H.E.P.	240	3	25		2,200	110	4	206
	Ayr Hydro-Electric System.	Ayr	H.E.P.		3	25		220	110	1	103
	Berlin Light Commissioners	Berlin	H.E.P.	2,240	3	25		550	110	136	2,293
	Baden, Police Village of	Baden	H.E.P.	240	3	25		2,200	110	8	78
	Brantford Hydro-Electric Commission.	Brantford	H.E.P.	1,600	3	25		220	110	12	1,643
	Canadian Niagara Power Company.	Niagara Falls	Water	75,000	3	25	11,000	2,200	110	55	233
	Caledonia, Village of	Caledonia	H.E.P.	480	3	25		550	110	3	53
	Delhi Light and Power Company, Ltd.	Delhi	Water	325	3	60	2,300	2,200	110	4	104
	Dunnville Electric Light Company.	Dunnville	Water	125	3		2,080		104		75
	Dundas Hydro-Electric System.	Dundas	H.E.P.	480	3	25		550	110	36	846
	Dundas Electric Company, Limited.	Dundas	Purchased	1,300	3	66·6		220	112	6	11
	Elmira Public Utilities Commission.	Elmira	H.E.P.	287	3	25		550	110	8	207
	Electric Power and Manufacturing Co.	Hamilton	Purchased		3	66·6			112		10
	Galt, Hydro-Electric Commission.	Galt	H.E.P.	480	3	25		550	110	70	2,130
	Hydro-Electric Department	Georgetown	H.E.P.	500	3	25		220	110	16	338
	Hydro-Electric Commission	Hamilton	H.E.P.	20,000	3	25		550	110	350	9,500
	Hamilton Cataract Power, Light and Traction Co.	Grimsby	Purchased		3	66·6		220	112	15	372
	Hagersville, Corporation of	Hagersville	H.E.P.	240	3	25		2,200	110	3	165

Hamilton Cataract Power, Light and Traction Co.	Beamsville	Purchased	540	3	66·6	.....	220	112	3	30
Hamilton Cataract Power, Light and Traction Co.	Burlington	Purchased	1,080	3	66 6	.....	220	112	16	111
Hamilton Electric Light and Power Co.	Hamilton	Purchased	4,300	3	66 6	.....	220	112	60	5,090
Hamilton Cataract Power, Light and Traction Co.	Hamilton	Water	46,200	3	66 6	.....	220	112	396	60
Lincoln Electric Light and Power Co.	St. Catharines	Purchased	1,280	3	66·6	.....	220	110	100	1,800
Municipal Electric Light and Power Plant.	Niagara Falls	Purchased	.....	3	25	.....	440	110	8	1,947
Milton Hydro-Electric System	Milton	H.E.P.	800	3	25	.....	550	110	6	235
Municipal Hydro Electric	Hespeler	H.E.P	365	3	25	.....	550	110	15	350
Merritton Electric Light and Power Plant.	Merritton	Purchased	430	3	25	.....	220	110	1	130
Municipal Electric Light and Power Plant	Niagara-on-the Lake	Purchased	160	3	25	.....	220	110	.....	220
New Hamburg Electric Department	New Hamburg	H.E.P.	300	3	25	.....	550	110	4	264
Oakville Water and Light Commission.	Oakville	Purchased	645	3	66·6	.....	2,400	120	12	581
Ontario Power Company	Niagara Falls	Water	160,000	3	25	12,000	12,000	110	27	201
Ontario Distributing Co., Ltd.	Niagara Falls	.....	.....	3	25	.....	440	220	4	122
Preston Light and Water Commissioners.	Preston	H.E.P.	1,360	3	25	.....	550	110	27	803
Paris Hydro-Electric Commission.	Paris	H.E.P.	600	3	25	.....	550	110	4	500
Simcoe Hydro-Electric System.	Simcoe	H.E.P.	80	3	25	.....	550	110	1	39
St. Catharines Hydro-Electric Commission.	St. Catharines	H.E.P.	500	3	25	.....	550	115	27	1,131
Toronto Power Company, Limited.	Toronto	Water	125,000	3	25	12,000	12,000	.....	11	.....
Tyendinaga, Corporation of	Harold	Water	370	1	60	2,200	.....	110	.....	338
Waterloo, Water and Light Commission.	Waterloo	H.E.P	965	3	25	.....	550	110	50	607
Welland Hydro-Electric Commission.	Welland	H.E.P.	400	3	25	.....	220	110	25	600
Welland Electrical Company	Welland	Water	.....	3	60	2,200	220	110		2 217
Waterford Hydro-Electric System.	Waterford	H E P.	.....	3	25	.....	.....	110	.....	25
Western Ontario Electric Co., Ltd.	Brantford	Purchased	2,800	3	66-6	.....	220	110	110	2,200
Waterdown Hydro Electric System.	Waterdown	H E P.	50	3	25	.....	550	110	6	104
London, Ont.	Lennox Water and Light Department.	Aylmer	Steam	200	1	60	1,150	.....	104	.....	300
	Abitibi Power Co., Ltd.	Abitibi	Steam	50		D.C.	120	110	110	.....	5

APPENDIX K.

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, etc.—*Continued.*

District.	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Meters.	
			Type.	Horse Power.				Power.	Lighting.	Power.	Lighting.
London, Ont. —*Con.*	Blyth, Corporation of	Blyth	Steam	60	1	133	1,140	.....	110	.....	75
	Board of Water, Light and Heat Commission.	St. Marys	Steam	250	3	60	2,200	550	110	32	490
	Blenheim, Corporation of	Blenheim	Steam	65	1	133	2,200	.....	110	.....	150
	H. W. Baird, Son & Co	Park Hill	Steam	100	.....	D.C.	220	.....	220	.....	65
	Bothwell, Corporation of	Bothwell	Steam	50	.....	D.C.	110	110	110	.....	
	Chesley Electric Light Company.	Chesley	.....	160	1	.....	2,080	.....	104	.....	5
	Chatham Gas Company	Chatham	Steam	970	2	60	2,300	440	110	57	1,436
	Geo. Coultie & Son	Thedford	Steam	65	1	133	1,100	.....	110	.....	54
	Clinton Public Utilities Commission.	Clinton	H.E.P.	600	3	25	.....	550	110	5	290
	Cargill, Limited	Cargill	Water	175	.....	D.C.	250	220	110	.....	
	Geo. Chambers	Watford	Steam	107	.....	D.C.	250	.....	230	.....	52
	Dutton Electric Light Company.	Dutton	Steam	90	1	60	1,040	.....	104	.....	11
	Dresden, Corporation of	Dresden	Steam	150	1	133	1,046	.....	104	.....	75
	Dorchester Electric Company.	Dorchester	.....	25	.....	.....	.....	2,200	110	.....	70
	Essex County Light and Power Co., Ltd.	Leamington	Steam	1,000	3	60	2,300	220	108	21	1,075
	Exeter Electric Light and Power Co.	Exeter	Steam	150	1	125	1,150	.....	110	.....	175
	Forest, Corporation of	Forest	Steam	118	3	25	2,200	.....	110	.....	300
	J. G. Field	Tavistock	Steam	100	1	133	1,000	.....	110	.....	70
	Goderich Water and Light Commission.	Goderich	H.E.P.	1,000	3	25	.....	550	110	6	557
	Glencoe Electric Light Commission.	Glencoe	Gas	96	3	60	2,200	.....	110	.....	85
	Green Swift, Ltd.	London	Steam	100	.....	D.C.	500	500	110	.....	6
	Helena Costume Co., Ltd.	London	Steam	500	.....	D.C.	230	230	115	8	60
	Ingersoll Water, Light and Sewer Commission.	Ingersoll	H.E.P.	1,005	3	25	.....	2,200	110	50	600
	Kincardine Water and Electric Commission.	Kincardine	Steam	300	1	60	2,300	.....	104	.....	125

London Electric Company, Limited.	London	Steam	2,300	1	60	2,300	500	115	200	1,800
Listowell Water and Light Commission.	Listowell	Steam	150	3	60	2,200	550	110	3	294
Mitchell Light and Water Commission.	Mitchell		125	2	60	1,100	550	110	6	170
Mildmay Electric Light Co., Ltd.	Mildmay	Purchased	50	2	60		220	110		37
James McHardy	Merlin	Gas	50		D.C.	110		110		9
Norwich, Corporation of	Norwich	H.E.P.	160	3	60		2,200	110	4	237
Newbury, Corporation of	Newbury	Steam	45		D.C.	140		110		
Plattsville, Police Village	Plattsville	H.E.P.	100	3	25		550	110	4	60
Public Utilities Commission	London	H.E.P.		3	25		2,300	110	365	7,374
Petrolia Utilities Co., Ltd	Petrolia	Gas	300	2	60	1,100	220	110		335
John Passmore	Hensall	Steam	160	1	125	1,100		110		54
Port Stanley Hydro-Electric Dept.	Port Stanley	H.E.P.		3	25		2,200	110	1	175
Paisley Electric Light Company.	Paisley	Water	137	2	133	2,080	104	104		5
Palmerston Electric Light Department.	Palmerston	Steam	125	2	60	2,300		104		168
Walter Ross	Teeswater	Steam	103	2	133	1,100		110		85
Ridgetown Water and Light Commission.	Ridgetown	Steam	100	1	133	2,000		108		176
Rock Glen Power Company, Limited.	Arkona	Water	120	3	60	2,200	2,200	110	3	48
Tilbury Hydro-Electric System.	Tilbury	H.E.P.	400	3	25		220	110		141
St. Thomas Light, Heat and Power Dept.	St. Thomas	H.E.P.	960	3	25		550	110	84	1,883
Stratford Light and Heat Commission.	Stratford	H.E.P.	960	3	25		550	110	75	1,690
Walter Stewart and Son	Lucknow	Steam	100		D.C.	125		115		15
Sandwich, Windsor and Amherstburg Ry.	Windsor	Steam	750	3	60	2,300	220	110	82	1,800
Strathroy Public Utilities Commission.	Strathroy	H.E.P.	300	3	25		550	110	1	340
Sarnia Gas and Electric Light Co., Ltd.	Sarnia	Steam	2,300	3	60	2,300	220	110	49	1,664
Southampton Electric Light and Power Co.	Southampton	Steam	265	3	60	6,600	440	110		70
Seaforth Falls Light and Power Company.	Wiarton	Water	220	3	60	6,600	220	110		66
Thamesford Hydro-Electric System.	Thamesford	H.E.P.	125	3	25		550	110	3	85
Tillsonburg Water and Light Commission.	Tillsonburg	H.E.P.	240	3	25		550	110	15	460
Thamesville Electric Light Plant.	Thamesville	Steam	90	1	133	1,150		115		135

APPENDIX K.

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, etc—*Continued.*

District.	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Meters.	
			Type.	Horse Power.				Power.	Lighting.	Power.	Lighting.
London, Ont —*Con.*	West Lorne Electric Light Company.	West Lorne..	Gas	65	.....	DC.	125	.....	110	.....	
	Wingham, Corporation of	Wingham	Water	550	3	60	2,300	550	110	7	326
	Wroxeter, Corporation of	Wroxeter	Steam.	50	1	133	100	.....	100	.....	38
	Walkerville Hydro-Electric System.	Walkerville,	H.E.P.		3	25	.....	550	110	75	988
	Wallaceburg Hydro-Electric System.	Wallaceburg	H.E.P.	480	3	25	.....	4,000	110	.....	500
	Water, Light and Sewer Commission.	Seaforth	H.E.P.	480	3	25	.....	2,200	110	13	316
	Woodstock Water and Light System.	Woodstock.	Steam.	400	3	60	22,000	550	110	25	1,275
	J. A. Williams	Zurich.	Steam.	15	.....	DC.	115	.....	110	.....	
	Walkerton Electric Light and Power Co.	Walkerton..	Water	385	3	60	2,300	550	110	5	201
	Marven White	Wheatley	Gas	53	.....	DC.	125	.....	125	.....	
Ottawa, Ont.	Alexandria, Corporation of	Alexandria, Ont.	H.E.P.	140	2	60	.....	.....	110	.....	130
	Almonte Electric Light Commission.	Almonte, Ont.	Water	300	.....	DC.	220	.....	110	.....	6
	H. Brown & Son	Carleton Place, Ont.	Water	525	3	60	2,200	2,200	108	*1	465
	Compagnie Electrique Maniwaki.	Maniwaki, Que.	Water	160	3	60	2,300	220	110	3	4
	Canadian Electric and Water Power Co.	Perth, Ont..	Water	500	2	133	2,200	550	110	4	325
	Chesterville, Corporation of	Chesterville, Ont.	H.E.P.		3	60	.....	.....	.....	1	115
	Charlton Englehart Light and Power Co.	Englehart, Ont.	Water	1,080	3	60	2,300	2,200	110	3	160
	F. F. Cross	Farm Point, Que.	Water	200	3	60	4,400	4,400	110	.....	
	Elk Lake Power Company	Elk Lake, Ont.	Water	140	3	60	600	.....	110	.....	16
	Galetta Electric Power and Milling Co.	Arnprior, Ont.	Water	700	3	60	2,300	2,200	110	.....	251
	Hawkesbury Electric Light and Power Co.	Hawkesbury, Ont.	Water	1,700	3	60	10,000	550	110	.....	67
	Hull Electric Co.	Hull, Que.	Water	980	3	60	2,200	550	118	20	1,297

Iroquois, Corporation of	Iroquois, Ont		77	2	60	2,400		110			
Morrisburg Electric Light and Power Pt.	Morrisburg, Ont		215	3	60	2,200		110	2		
Albert MacLaren	Buckingham, Que	Water	550	2	60	2,300		110			
Mattawa Electric Light and Power Co.	Mattawa, Ont	Water	250	3	60	2,200		104			7
North Bay Light, Heat and Power Co., Ltd.	North Bay, Ont	Water	1,200	3	60	2,200	2,200	104	33		2,224
Northern Ontario Light and Power Co.	Golden City, Ont	Water	4,600	3	25	12,000	220	110	2		35
Northern Ontario Light and Power Co.	Tunmins, Ont	Water	4,600	3	25	12,000	220	110	12		374
Northern Ontario Light and Power Co.	New Liskeard, Ont	Water	400	3	60	2,500	220	110	13		392
Northern Ontario Light and Power Co.	South Porcupine, Ont	Water	4,600	3	25	12,000	220	110	10		220
Northern Ontario Light and Power Co.	Sturgeon Falls, Ont	Water	2,500	3	60	2,200	2,200	110			367
Northern Ontario Light and Power Co.	Cochrane, Ont	Gas	400	3	60	2,200	2,200	110	13		310
Northern Ontario Light and Power Co.	Haileybury, Ont	Water	400	3	60	2,200	220	110	13		658
Northern Ontario Light and Power Co.	Cobalt, Ont.	Trans. Line.		3	60		220	110	40		1,200
Northern Ontario Light and Power Co.	Cobalt, Ont.	Trans. Line.	3,750	3	60		2,200	110	20		8
Northern Ontario Light and Power Co.	Cobalt, Ont.	Trans. Line.	3,500	3	60		2,200	110	20		7
Northern Ontario Light and Power Co.	Cobalt, Ont.	Trans. Line.	8,550	3	60		2,400	110	35		10
Municipal Electric Department	Ottawa, Ont	Purchased		2	60		550	108	157		7,270
Ottawa Electric Company	Ottawa, Ont	Water	17,000	2	60	2,300	428	107	234		15,822
Pembroke Electric Light Company	Pembroke, Ont	Water	1,800	3	60	2,250	2,250	110	1		500
Papineauville Electric Company,	Papineauville, Que			3	60	2,300	550	110			7
Rapids Power Company	Morrisburg, Ont	Water	500	3	60	2,300	2,200				
Renfrew Electric Company, Limited	Renfrew, Ont	Purchased	50	2	60			110			160
Renfrew Power Company, Limited	Renfrew, Ont	Water	1,000	2	60	2,300	2,300	110	1		290
Renfrew Flour Mills, Limited	Pakenham, Ont		60	2	60			110			
Shawville Electric Department	Shawville, Que	Gasoline	20		DC.	65		55			75
Stormont Electric Light and Power Co.	Cornwall, Ont	Water	200	1	133	1,100	550	110			749
Smith's Falls Electric Power Co.	Smith's Falls, Ont	Water	1,100	3	60	2,200	550	110	1		350

APPENDIX K.

LIST of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, etc.—*Continued.*

District.	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Meters.	
			Type.	Horse Power.				Power.	Lighting.	Power.	Lighting.
Ottawa, Ont., —*Con.*	St. Lawrence Power Company, Limited.	Cornwall, Ont	Water	2,500	3	60	2,200	550	110	2	97
	Vankleek Hill Electric Co., Limited.	Vankleek Hill, Ont.	Purchased					240	118		30
	Winchester Hydro-Electric System.	Winchester, Ont.	H.E.P.	160	3	60			110		150
Toronto, Ont.	Alliston Electric Light Company.	Alliston	Water	150	2	133	1,100		110		100
	Aurora Electric Department	Aurora	Purchased		3	25		550	110	8	330
	Beaverton Hydro-Electric	Beaverton	Water	1,200	3	60	2,200	220	110	4	117
	Barrie Electric Light Department.	Barrie	H.E.P.	450	2	60		2,300	110	14	1,000
	Brechin Hydro Electric Department.	Brechin	H.E.P.	1,200	3	60		220	110	1	26
	Board of Light and Water Commissioners.	Guelph	H.E.P.	1,500	3	60		550	110	80	2,014
	Bracebridge Electric Department.	Bracebridge	Water	1,850	2	60	2,200	2,200	110		15
	Geo. Clendenan	Clarksburg	Water	150	3	60	2,300	2,200	110		14
	Canadian Cooper Company	Copper Cliff	Water	12,800	3	25	2,400	2,200	110	50	
	Creemore Electric Department.	Creemore	Purchased		3	60		220	110	1	100
	Cannington Electric Department.	Cannington	H.E.P.		3	60		220	110	2	106
	Coldwater Electric Department.	Coldwater	Purchased	300	3	60		550	110	2	101
	Canada Velling Company	Toronto	Purchased		3	25		250	110	5	7
	Chapleau Electric Light and Power Co.	Chapleau	Water	400	3	60	2,300		110		9
	Cataract Electric Company, Limited.	Orangeville	Water	200	3	60	2,500	220	110	2	250
	A. & C. Dike	Mt. Albert	Gas	65		DC.	250		250		
	Drayton Mills Limited	Drayton	Water	125	3	60	2,200		110		17
	Dundalk Electric Light Plant.	Dundalk	Steam	60	2	133	2,400		110		67

Fred Deagle	Blind River	Water	300	3	60	2,400	220	110			
Electric Light and Water Commission.	Gravenhurst	Water	750	3	60	6,600	2,200	110			29
Elora Hydro-Electric Commission.	Elora	H.E.P.	240	3	25		550	110	1		115
Electric Light Department	Beeton	Steam	65	1	60	1,000		120			60
Elmvale Trustees	Elmvale	H.E.P.	300	3	60		220	110	2		118
Fergus Hydro-Electric Department	Fergus	H.E.P.	240	3	25		550	110	1		180
Georgian Bay Milling and Power Co., Ltd.	Meaford	Water	800	3	60	2,300	2,300	110	3		310
J. W. Gould	Uxbridge	Water	98	1	125	1,100		104			93
Hanover Electric Light and Power Co.	Mustadt	Water	300	3	60	2,300	110	101			20
Hanover Electric Light and Power Co.	Hanover	Water	300	3	60	2,300	119	104			200
Hydro-Electric Department	Brampton	H.E.P.	600	3	25		550	110	21		750
Huntsville Electric Department	Huntsville	Steam	250	1	125	1,010		106			275
Hanlan Electric Department	Hanlan	Steam	110	3	60	2,200		110			148
Interurban Electric Company	Toronto	Water	5,000	3	25	2,200	2,200	110	220		2,350
Kent Investments Limited	Toronto	Purchased		3	25		250	115			57
Knight Bros. Co., Ltd	Burks Falls	Water	225	1	125	1,100	500	104			13
Little Current Electric Department.	Little Current	Steam	150	3	60	2,500	2,300	110			50
A. J. Lewick & Son	Sutton West	Water	45		DC.	220		220			
Markham Electric Department	Markham	Steam	100	2	125	1,200		110			92
Minnis Bros.	Markdale	Steam	250	3	60	2,300		110			15
Mimico Hydro-Electric Commission.	Mimico	H.E.P.	600	3	25		550	110	5		500
Monarch Supply Company, Limited.	Toronto	Steam	300		DC.	250	250	110	10		53
Mount Forest Water and Light Commission.	Mount Forest	Steam	100	1	133	1,150		110	2		250
New Toronto Electric Department	New Toronto	H.E.P.		3	25			115	2		125
Nipissing Power Co., Ltd	Powassan	Trans. Line	200	3	60		2,200	110	2		81
Newmarket Electric Department	Newmarket	Steam	175	2	133	2,200		110			422
Orillia Water, Light and Power Comm.	Orillia	Water	1,600	2	66·6	1,200	2,200	110	3		240
Owen Sound Electric Department	Owen Sound	Steam	950	3	60	2,200	550	110	78		1,740
Parry Sound Electric Department	Parry Sound	Water	580	3	60	2,400	550	113	14		547
Port Credit Electric Department	Port Credit	H.E.P.		3	25		550	110	3		160
Port McNicoll Electric Department	Port McNicoll	H.E.P.	66	3	60			115			53

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List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, etc.—*Continued.*

District.	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Meters.	
			Type.	Horse Power.				Power.	Lighting.	Power.	Lighting.
Toronto, Ont., —*Con.*	Penetanguishene Water and Light Comm.	Penetanguishene	H.E.P.	800	3	60		2,200	110	14	246
	Port Perry Electric Department.	Port Perry	Steam	75	1	133	1,100		110		100
	John Philip	Grand Valley	Steam	150	2	60	2,200		104		160
	Pine River Light and Power Company, Ltd.	Orangeville	Water	800	3	60	2,200	220	110	1	342
	Rockwood Electric Department.	Rockwood	H.E.P.	50	3	25		550	110	3	74
	Richmond Hill Electric Department.	Richmond Hill	Purchased		3	25		550	110	6	120
	F. W Stair	Toronto	Steam	75		DC.	220	220	110		
	Sunderland Electric Department.	Sunderland	H.E.P.	100	3	60		550	110		52
	South River Electric Company.	South River	Water	100	3	60	2,300	4,400	110		3
	Sudbury Electric Department.	Sudbury	Purchased	600	2	60		220	110		1,250
	Steelton Electric Department.	Steelton	Purchased	300	3	60		220	110		435
	Stayner Electric Department.	Stayner	Purchssed	400	3	60		220	110	2	112
	Stouffville Electric Light Plant.	Stouffville	Steam	125	1	60	1,100		110		115
	Toronto Township Electric Department.	Toronto Township	H.E.P.	200	3	25		550	110	3	135
	Tottenham Electric Department.	Tottenham	Steam	60		DC.	110		110		2
	Toronto Electric Commission	Toronto	H.E.P.	30,000	3	25		550	115	1,603	34,323
	Toronto Suburban Railway Company.	Toronto	Purchased		3	25		550	110	50	925
	Toronto Electric Light Co., Ltd.	Toronto	Purchased	18,000	3	25		2,300	110	6,000	20,215
	Toronto and York Radial Railway Co.	Toronto	Purchased	2,500	3	25		4,100	110	13	107
	Thornbury Electric Light Plant.	Thornbury	Water	75	1	125	1,040		104		110

	Thessalon Electric Department.	Thessalon	Steam	80	1	125	1,040	104	104			143
	Wahnapitae Power Company, Limited.	Sudbury	Water	5,000	3	60	2,300	2,300	110			
	Woodville Electric Department	Woodville	H.E.P.		3	60		220	110	3		40
	Wenger Milling Company	Ayton	Water	10		DC.	112		110			1
	Weston Water, Power and Light Commission.	Weston	H.E.P.	200	3	25		550	110	12		425
	Woodbridge, Hydro-Electric Commission.	Woodbridge	H.E.P.	300	3	25		550	110	3		65
	Waubaushene Electric Department	Waubaushene	H.E.P.	66	3	60		220	115	1		57
	Water and Light Commission	Collingwood	H.E.P.	700	3	60		2,200	110	22		817
	Water and Light Commission	Midland	H.E.P.		3	60		220	110	35		930
	Water and Light Commission	Whitby	Purchased		3	60		550	108	13		430
	Water and Light Commission	Sault Ste. Marie	Purchased		3	60		208	104	75		2,175
Montreal, Que.	Beauharnois Electric Company, Ltd.	Beauharnois	Purchased	1,200	3	60		220	110			278
	Canadian Light and Power Company	Montreal	Water	31,300	3	60	2,200		110			12
	Lachine, City of	Lachine	Purchased		3	60		550	110	25		1,150
	Montreal Light, Heat and Power Co.	Montreal	Water	129,000	3	60	12,600	12,000	110	1,937		56,155
	Montreal Public Service Corporation.	Montreal	Water	24,000	3	60		550	110	225		6,300
	Pointe Claire, Corporation of	Pointe Claire	Purchased		3	60		2,200	110			172
	St. Agathe, Corporation of	Ste. Agathe	Water	120	3	60	2,200		110			101
	St. Lambert, Town of	St. Lambert	Purchased		3	60		550	110	6		595
	Verdun, Corporation of	Verdun	Steam	600	3	60	2,250	550	110	5		4,000
	Vaudreuil Electric Company, Limited.	Vaudreuil Station	Purchased		3	60		2,200	110	2		100
	Westmount, Corporation of	Westmount	Steam	1,450	3	60	2,300	550	110			2,750
Quebec, Que.	Amqui Electric Company	Amqui	Steam	150	3		2,200	550	110			50
	Beauce Electric Power Company	Beauceville	Water					550	110	2		163
	Bonne Electric Light and Power Company	Montmagny			1	60	2,200	110	104			175
	Bay St. Paul Electric Light and Power Co.	Bay St. Paul		350	3	60	2,000		104			
	Canadian Electric Light Company	Levis	Water	4,800	3	60	11,500	2,200	110	40		668
	Fredin & Vallieux	St. Anselme		75	2		2,080		110			4
	Charles A. Jalbert	Pont Rouge		40	3	60	2,300	500	110			15
	La Compagnie Electrique Du Quebec	Quebec	Steam	2,000	3	63	2,200	550	110	45		2,700
	La Ville De Francville	Francville		300	2	133	2,400		104			480

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District.	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Meters.	
			Type.	Horse Power.				Power.	Lighting.	Power.	Lighting.
Quebec, Que.—*Con.*	La Cie d'Electricité de Roberval.	Roberval		300	1			2,040	104		4
	Le Crédit Municipal Canadien	Rimouski	Water	550	2	60	2,200	500	110		27
	La Société d'Eclairage & D'Energie Electrique du Saguenay.	Chicoutimi		2,400	3	60	220	550	110		20
	Municipalité Village St. Raymond.	St. Raymond				133	104		104		
	Nairn Falls Power and Pulp Co., Ltd.	La Malbaie			3	60	4,400	220	110		
	Quebec Ry. Light, Heat and Power Co.	Quebec	Water	9,000	3	64	5,500	550	104	215	8,200
Sherbrooke, Que.	Brome Lake Electric Power Company.	Waterloo	Water	300	1	60	2,080		104		205
	A. G. Hurd	Sawyerville	Water	100	1	125	2,080		110		39
	D. C. Horner & Son	West Shefford	Water	100	1	133	1,040		110		13
	Lennoxville Light and Power Company.	Lennoxville	Purchased					2,200	110	7	225
	La Corporation De La Ville De Magog.	Magog	Water	1,800	2	60	2,400	2,200	108		
	La Compagnie Champoux	Disraëli	Water	100	1	60	2,000		110		
	Municipal Electric Light and Power Dept.	Coaticook	Water	650	3	60	2,200	2,200	110		385
	W. M. Pike & Son	Rock Island	Water	33		DC.	110	110	110		
	Richmond Electric Company	Richmond	Water	360	2	133	2,300		110		360
	Scotstown Electric Light and Power Co.	Scotstown	Water	250	3	60	2,200	550	110		
	Sutton Electric Department	Sutton	Purchased		3	60		6,600	115		200
	Sherbrooke Electric Department.	Sherbrooke	Water	5,200	3	60	6,600	550	108	26	2,657
	Shipton Electric Light and Power Co.	Danville	Water	360	1	60	2,080		104		102
	Sherbrooke Ry. and Power Company.	Sherbrooke	Water	4,000	3	60	2,200	2,200	110	15	475

	Three Miles Falls Water Power Company	Weedon Centre	Purchased	330	3	60		2,200	110			9
	Westberg Electric Light and Power Co.	Cookshire	Water	250	3	60	3,000	550	104	2		225
	Windsor Electric Light Department	Windsor		210	3		2,400		110			
St. Hyacinthe, Que.	Acadamia Water and Power Company	Victoriaville	Purchased		3	30		2,200	110	7		219
	Nelson Bagnall	Oswansville	Water	70	3	60	2,200		110			1
	M. S. Carnell & Son	Starbridge	Water	31		D.C.	110		110			1
	A. N. Dufresne	St. Cesaire	Water	158	2	60	2,200	2,200	110			5
	Farnham, Town of	Farnham	Water	1,630	3	60	2,800	550	110			370
	P. Guertin	Acton Vale	Water	50	1	60	2,080		104			25
	La Cie Electrique Phenix	Plessisville	Trans. Line	400	3	30		2,500	110	7		176
	La Compagnie Electrique de Nicolet	Nicolet	Purchased	87	3	30		220	110	4		85
	La Cie de Gaz, Electricite et Force	St. Hyacinthe	Water	900	3	60	6,600	550	104	10		851
	Municipal Light, Heat and Power Dept.	Iberville	Steam	75	3	60	2,300		110			140
	St. Francis Water Power Company	Thetford Mines	Water	3,000	3	30	15,000	2,400	110	4		
	Southern Canada Power Company	Drummondville	Water	100	3	60	2,200	2,200	110	1		250
	St. Johns Electric Light Company	St. Johns	Purchased		3	60		2,200	110	10		625
	Sorel Light and Power Company	Sorel	Purchased	1,000	3	30		220	110	15		700
	Thetford Mines Electric Company	Thetford Mines	Purchased	250	3	30		500	110			100
Three Rivers, Que.	La Corporation De La Ville De Joliette	Joliette	Water	300	2	60			104			500
	North Shore Power Company	Three Rivers	Water	1,250	3	60	2,500	550	110	20		550
	St. Maurice Light and Power Company	Shawinigan Falls	Purchased		3	30		220	110	6		250
St. John, N.B.	Andover and Perth Electric Light Comm.	Andover and Perth	Purchased		3	60		220	110	1		112
	Bathurst Electric and Water Power Co.	Bathurst	Water	1,000	3	60	6,600	220	110	1		110
	Chatham Light Department	Chatham	Steam	375	2	60	1,180		110			345
	Campbellton Electric Light Department	Campbellton	Gas	500	3	60	2,300	220	110	15		550
	Dalhousie Electric Department	Dalhousie	Gas	125	3	60	2,200		110			83
	Dorchester Electric Light and Power Co.	Dorchester	Steam	75	1	60	2,040		104			113

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District.	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Meters.	
			Type.	Horse Power.				Power.	Lighting.	Power.	Lighting.
St. John, N.B., —*Con.*	Edmunston Electric Department	Edmunston	Water	500	1	60	2,200	2,200	110		123
	Fredericton Gas Light Company.	Fredericton	Steam	1,000	2	60	2,300	220	110	16	670
	Grand Falls Electric Light Dept.	Grand Falls	Purchased					220	110	2	107
	Kent Electric Co., Ltd	Richibucto	Steam	120	1	123	2,200		110		36
	King Lumber Company	Chipman	Steam	70		DC.	125	110	110	2	18
	A. & R. Loggie Company, Limited.	Loggieville	Steam	65		DC.	110	110	110		
	Maine and New Brunswick Elect. Power Co.	Aroostook Junction	Water	3,500	3	60	11,000	500	110	1	37
	Moncton Tramways Electric and Gas Co.	Moncton	Steam	900	2	60	1,100	500	110	36	1,316
	Newcastle Electric Department.	Newcastle	Steam	325	2	60	2,300	2,300	110		300
	Port Elgin Electric Light Company.	Port Elgin	Steam	50		DC.	220	220	220		45
	Saint John Railway Company.	St. John	Steam	7,000	3	60	2,300	250	107	314	5,741
	C. M. Sherwood, Limited	Centreville	Water	160		DC.			110		
	Sussex Manufacturing Company.	Sussex	Steam	200	2	133	2,000		110		269
	Shediac Electric Light and Power Co.	Shediac	Water	108	3	60	2,300	220	110	1	79
	St. Léonard Electric Company Limited.	St. Léonard	Purchased		3	60		110	110	2	44
	St. Stephen Electric Light Company.	St. Stephen	Water	600	3	60	2,300	220	110	6	321
	Sackville Electric Light Company.	Sackville	Steam	375	3	60	2,300	220	110	3	209
	Woodstock Electric Railway, Light and P.	Woodstock	Water	500	3	60	2,300	2,300	110	2	500
Halifax, N.S	Antigonish Electric Company.	Antigonish	Steam	100		DC.	230		115		101
	Annapolis Royal, Town of	Annapolis Royal	Water	245	2	66	2,200		104		3

Acadia Coal Company, Limited.	Stellarton	Steam	4,000	3	50	3,150	526	110	8	6
Acadia Electric Light Company.	Wolfville	Steam	174	3	60	2,300	.....	110	.....	214
Bridgetown Electric Light and Power Co.	Bridgetown	Water	175	1	60	2,300	.....	110	.....	.....
Bear River and Digby Elect. Light Co.	Bear River	Water	60	3	60	2,200	.....	110	.....	.....
Cape Breton Electric Company, Limited.	North Sidney	Steam	2,745	2	60	2,300	2,300	110	64	2,005
Chambers Electric Light and Power Co.	Truro	Steam	500	.....	DC.	125	220	110	26	592
Canada Electric Company, Limited.	Amherst	Steam	3,000	3	60	11,000	2,200	110	29	813
Canso, Town of	Canso	Gas	95	3	60	2,300	220	110	.....	80
John Digby	Digby	Steam	150	.....	.....	.....	.....	104	.....	108
Dartmouth Gas, Elect. Light and Power Co.	Dartmouth	Steam	300	3	60	2,2000	.....	110	.....	461
Dominion, Town of	Dominion	Purchased	35	3	25	.....	2,200	110	.....	108
Dartmouth, Town of	Dartmouth	Water	50	3	60	2,200	.....	110	.....	.....
Electric Light Plant	Glace Bay	Steam	600	2	60	2,200	.....	104	.....	543
Edison Electric Light and Power Co.	Springhill	Steam	500	2	60	2,080	.....	104	.....	73
Hantsport, Town of	Hantsport	Steam	75	3	60	2,200	2,000	110	.....	58
Halifax Electric Tramway Co., Ltd.	Halifax	Steam	5,992	3	60	2,200	550	110	264	4,128
Inverness Railway and Coal Co.	Inverness	Steam	75	.....	DC.	125	...	115	.....	.....
Kentville Electric Light and Power Co.	Kentville	Steam	120	.....	DC.	150	.....	110	.....	131
Lawrencetown Electric Light Commissioners.	Lawrencetown	Steam	35	3	60	125	.....	112	.....	.....
Lunenburg Gas Company	Lunenburg	Water	40	3	60	3,500	.....	104	.....	21
Middleton Elect. Light Plant	Middleton	Gas	66	3	60	2,300	.....	110	.....	130
Malone Water Commissioners	Malone	Water	80	1	60	2,250	220	110	.....	21
Oxford Electric Company	Oxford	Steam	65	2	60	2,400	...	110	.....	25
Pictou County Electric Company, Ltd.	Stellarton	Steam	1,125	3	60	2,300	220	108	54	1,143
Parrsborough Electric Light Plant	Parrsborough	Steam	140	2	133	2,200	...	104	.....	65
Stewiacke Electric Light and Power Co.	Stewiacke	Steam	125	3	60	2,200	.....	110	.....	27
Shelburne, Town of	Shelburne	Water	100	3	60	2,300	220	110	.....	.....
Sydney Mines Electric Company, Ltd.	Sydney Mines	Steam	75	2	60	2,200	220	220	3	300
Sackville River Electric Company, Ltd.	Bedford	Water	60	3	60	2,300	110	110	.....	51
Truro, Town of	Truro	Steam	75	3	60	2,400	...	110	...	3
Windsor Electric Light and Power Co.	Windsor	Steam	280	2	66 6	1,740	220	165	1	330

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District	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Meters.	
			Type.	Horse Power.				Power.	Lighting.	Power.	Lighting.
Halifax, N.S., —*Con.*	Waterford Public Utilities Company.	New Waterford	Purchased.	100	1	25		110	110	1	31
	Yarmouth Light and Power Company.	Yarmouth	Water	450	3	60	2,300	220	110	25	450
Charlottetown, P.E.I.	Charlottetown Light and Power Co.	Charlottetown	Steam		3	60	2,200	220	110	4	1,223
	Charles W. Ives	North Tryon	Water			DC.	110		110		
	Leard Electric Power Company.	Alberton	Water	40	1	60	2,200		110		42
	Geo. E. Leard & Son.	Crapaud	Steam	20	2	60	2,200		110		
	Montague Electric Company, Limited.	Montague	Water	49	1	125	2,080		104		44
	Sun Electric Company, Limited.	Summerside	Steam	300	1	125	1,000		105		278
Winnipeg, Man.	Brandon Electric Light Company, Ltd.	Brandon	Water	3,500	3	60	2,300	2,300	120	68	1,515
	Boissevain Electric Department.	Boissevain	Steam	125	3	60	2,200		115		120
	Carberry Electric Department	Carberry	Steam	95	2	60	2,200		110		142
	Carman Electric Department.	Carman	Steam	175			230		220		147
	Dauphin Electric Department.	Dauphin	Steam	430	2	60	2,200	220	110	28	555
	Killarney Electric Light Company.	Killarney	Steam	110	3	60	2,300	110	110		94
	Morden Electric Light Plant.	Morden	Steam	150	1	133	1,080		110		136
	Minnedosa Power Company.	Minnedosa	Water	450	3	60	2,400	220	110	1	150
	Neepawa Electric Department	Neepawa	Steam	300	3	60	2,200	220	110		
	Pt. LaPrairie Electric Department.	Pt. LaPrairie	Steam	900	3	60	2,300	230	115	30	608
	Russell Electric Department.	Russell	Gas	75	3	60	2,200	110	110	1	608
	Rapid City Electric Department.	Rapid City	Gas	50	3	60	2,300		110		35
	Souris Electric Department.	Souris	Gas	164		DC.	230	220	110	1	150

	Selkirk Electric Department	Selkirk	Purchased	.....	3	60	.....	550	110	17	383
	Winnipeg Light and Power Department	Winnipeg	Water	47,660	3	60	6,600	550	110	.....	32,768
	Winnipeg Electric Railway Company	Winnipeg	Water	40,000	3	60	2,300	550	110	833	15,107
Regina, Sask.	Arcola Light and Power Company, Limited	Arcola	Oil	44	1	60	1,100	.....	110	.....	116
	Broadview Electric Department	Broadview	Gas	75	.....	60	2,200	.....	110	.....	90
	Battleford Electric Department	Battleford	Purchased	.....	3	60	.....	220	110	10	260
	Canora Electric Department	Canora	Oil	92	3	60	2,200	110	110	1	120
	Carlyle Electric Department	Carlyle	Steam	52	3	60	2,300	.....	110	.....	51
	Davidson Electric Department	Davidson	Gas	80	3	60	2,200	220	110	.....	89
	James Arthur Daniels	East View	Oil	15	.....	DC.	115	.....	115	.....	.....
	Electric Light and Power Company	Rosstown	Steam	100	3	60	2,300	220	110	1	43
	Electric Light and Power Company	Lumsden	Oil	40	3	60	2,200	.....	110	.....	84
	Estevan Electric Department	Estevan	Steam	350	3	60	2,200	200	100	8	355
	Fort Qu'Appelle Power Company	Fort Qu'Appelle	Oil	25	3	60	2,200	220	110	1	46
	D. A. Gzech	Morse	Steam	68	3	60	2,300	110	110	1	22
	Govan Electric Department	Govan	Oil	20	.....	DC.	115	.....	110	.....	36
	Grenfell Electric Department	Grenfell	Gas	78	3	60	2,200	.....	125	.....	103
	Jas. Hutchinson	Gull Lake	Gas	64	3	60	2,300	220	115	1	102
	Humboldt Electric Department	Humboldt	Steam	200	3	60	2,200	220	110	2	160
	Indian Head Electric Department	Indian Head	Steam	225	3	60	2,200	208	104	.....	240
	W. Johnson & Son	Lloydminster	Gas	100	.....	DC.	220	220	220	1	123
	H. M. Klumpp	Herbert	Gas	64	3	60	2,300	115	115	1	99
	Kamsack Electric Department	Kamsack	Gas	300	3	60	2,300	2,300	110	.....	75
	Kindersley Electric Department	Kindersley	Steam	125	3	60	2,200	220	110	1	137
	Langham Electric Department	Langham	Gas	50	3	60	2,200	.....	110	.....	73
	Leader Publishing Company	Regina	Gas	100	3	60	220	220	110	.....	6
	Maple Creek Light, Power and Milling Co.	Maple Creek	Steam	100	3	60	2,200	.....	110	.....	100
	Melfort Electric Department	Melfort	Oil	150	3	60	2,200	220	110	1	150
	McClimans & Crabb	Bender	Gasoline	12	.....	DC.	110	110	110	.....	.....
	McCallum Hill & Company	Regina	Steam	375	.....	DC.	220	220	110	1	55
	William W. Morrison	Lashburn	Oil	25	.....	DC.	110	.....	110	.....	20
	Melville, Corporation of	Melville	Gas	282	3	60	2,300	220	110	.....	360
	Moose Jaw, City of	Moose Jaw	Steam	4,500	3	60	2,300	220	110	170	2,956
	North Battleford, Corporation of	North Battleford	Steam	1,000	3	60	2,300	220	110	35	700
	Outlook, Town of	Outlook	Gas	75	3	60	2,200	220	110	1	109

APPENDIX K.

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, etc.—*Continued*

District.	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Metees.	
			Type.	Horse Power.				Power.	Ltghting.	Power.	Lighting.
Regina, Sask. —*Con.*	Prince Albert Electric Light Plant.	Prince Albert. ...	Steam.....	1,600	3	60	2,200	550	110	47	1,530
	Portal Power Company.....	North Portal.	Trans. Line	.....	.....	DC.	.....	.....	220	.....	19
	Qu'Appelle Electric Light Company.	Qu'Appelle.....	Gas.....	90	.....	DC.	220	440	220	.....	65
	Regina, Light and Power Department.	Regina..	Steam.....	10,900	3	60	2,200	2,200	110	249	5,410
	Rouleau, Town of.	Rouleau.....	Gas.....	175	3	60	2,300	.....	115	... ...	133
	Radisson Iron and Electric Works.	Radisson	Gasoline ...	.....	.....	DC.	115	115	115	.....	17
	Strassburg, Corporation of....	Strassburg.....	Steam.....	50	3	60	2,200	.....	110	. .....	100
	Swift Current, City of.....	Swift Current.....	Steam.....	295	3	60	2,300	220	110	21	619
	Saltcoats, Town of	Soltcoats.....	Steam	40	3	60	2,200	110	110	... ...	82
	Saskatoon, Corporation of....	Saskatoon	Steam.....	7'973	2	60	2,460	2,200	110	323	4,229
	Scott, Town of.....	Scott	Oil.....	100	3	60	2,200	220	110	1	65
	L. Spitzer & P. Leasch... ..	Semans..	Oil...	9	.....	DC.	116	.....	110	.....	
	Arthur Townsend..... ...	Milestone.....	Gas	26	.....	DC.	220	.....	110	.....	
	Tisdale Trading and Milling Company.	Tisdale	Steam ...	125	3	60	550	220	110	... .	39
	Weyburn, Corporation of....	Weyburn	Steam.....	500	3	60	2,300	220	110	42	660
	Wadena Light and Power Plant.	Wadena	Gas.....	61	3	60	2,300	.....	112	.....	78
	Watrous Electric Light, Power and Traction.	Watrous.	Gas.....	90	3	60	2,200	220	110	.....	140
	Wilcox Hotel.....	Wilcox	Gasoline....	9	.....	DC.	....	115	110	.....	
	Wilkie, Town of.....	Wilkie	Oil.....	100	8	60	2,200	220	110	2	125
	Wolseley Light and Power Plant.	Wolseley.....	Gas.....	110	3	60	2,300	110	110	2	138
	Yorkton, Town of	Yorkton.....	Oil.....	550	3	60	2,200	550	110	13	380
	Yellow Grass, Town of.....	Yellow Grass..	Oil	25	.....	DC.	120	110	110	.....	61
Calgary, Alta...	Albrta Electric Company Limited.	Bassano.....	Steam ..	75	3	60	2,200	2,200	120	.....	121
	Bankhead Mines Limited.....	Bankhead	Steam.....	500	3	60	2,200	550	210	1	321

Bowness Improvement Company.	Calgary	Gas	350	3	60	2,200	220	110	2	6	
Cardston, Municipality of	Cardston	Steam	100	2	60	2,200		110		150	
City of Calgary, Corporation of	Calgary	Steam	18,360	3	60	2,300	220	110	722	13,781	
Claresholm, Town of	Claresholm	Steam	200	3	60	2,300	220	110	1	128	
Canada West Coal Company, Limited	Taber	Steam	175	3	60	2,300	116	110		126	
Carmangay, Town of	Carmangay	Steam	75		DC.	220		110		20	
Calgary Power Company, Limited	Calgary	Water	31,300	3	60	12,000	12,000	110			
Calgary Water Power Company Limited	Calgary	Steam	2,875	3	60	2,200	210	105	40	1,850	
Didsbury, Town of	Didsbury	Steam	100	3	60	2,200	220	110	1	112	
Electric Light System	Pincher Creek	Steam	275	3	60	2,250		110		225	
Frank-Canadian Collieries Limited	Frank	Steam	750	3	60	2,200	440	110			
International Coal and Coke Company	Colemans	Steam	1,650	3	60	2,200	2,200	250			
Knight Sugar Company Limited	Raymond	Steam	75	3	60	2,200		110		8	
Lethbridge, City of	Lethbridge	Steam	3,000	2	60	2,200	220	110	100	1,715	
P. A. Macdonald	High River	Steam	160	3	60	2,200	220	110		215	
Medicine Hat, City of	Medicine Hat	Steam	2,400	3	60	2,300	550	110	76	999	
Macleod, Municipality of	Macleod	Steam	600	3	60	2,300	220	110		100	
Nanton, Town of	Nanton	Steam	100	3	60	2,200		110		101	
Rocky Mountains Cement Company	Blairmore	Steam	150	3	60	2,300	2,300	110			
C. O. Saunders	Okotoks	Gas	125	3	60	2,200	110	110		3	
Edmonton, Alta.	Asap Heat and Supply Company Limited	Steam	10		DC.			110			
Brazeau Collieries Limited	Nordegg	Steam	250	3	60	2,300	440	110		14	
Camrose, Municipality of	Camrose	Steam	235	3	60	2,300	220	120	7	313	
Electric Light and Power Department	Edmonton	Steam	1,300	3	60	2,300	550	110	524	11,441	
Fort Saskatchewan Electric Light Department	Fort Saskatchewan	Steam	90	2	60	2,200		110		122	
Hudson's Bay Company	Edmonton	Steam	250		DC.	220	220	110	1	1	
Jasper Park Collieries Limited	Pocahontas	Steam	306	3	60	500	440	110	6		
Lacombe, Town of	Lacombe	Water	125	3	60	7,600		110		190	
Mountain Park Coal Company Limited	Mountain Park	Steam	500		DC.	250	250	250	1	1	
Provost, Town of	Provost	Purchased	75	60	60			110		111	
Stettler, Town of	Stettler	Steam	187	3	60	2,300		110		230	
Vegreville Electric Light and Power Co.	Vegreville	Gas	62		DC.	440		220		75	
Wetaskiwin, Corporation of	Wetaskiwin	Steam	740	2	60	2,300	220	110	17	385	
Yellowhead Pass Coal and Coke Co.	Coalspur	Steam	60		DC.	125		125			

APPENDIX K.

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, etc.—*Continued.*

District.	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Meters.	
			Type.	Horse Power.				Power.	Lighting.	Power.	Lighting.
Vancouver, B.C.	Ashcroft Water, Electric and Improvement Co.	Ashcroft	Gas	100	3	60	2,300	.....	110	.....	141
	Adams River Lumber Company Limited.	Chase	Steam	75	1	125	1,100	.....	110	.....	40
	Armstrong Electric Department.	Armstrong	Water	300	3	60	2,200	2,000	110	3	200
	Anglesey Estates	Walhachin	Oil	15	.....	DC.	150	.....	110	.....	.....
	Britannia Mining and Smelting Co. Ltd.	Britannia Beach	Water	1,975	3	60	6,600	220	110	.....	35
	British Columbia Electric Railway Co.	Vancouver	Steam	18,000	3	60	2,200	2,200	110	1,569	38,516
	Cascade Water Power and Light Co. Ltd.	Rossland	Water	1,000	3	60	2,000	20,000	110	.....	4
	Canadian Western Lumber Company Ltd.	Fraser Mills	Steam	3,000	3	60	500	500	110	35	.....
	Crows Nest Pass Electric Light and Pr.	Coal Creek	Steam	275	.....	DC.	220	.....	220	.....	.....
	Crows Nest Pass Electric Light and Pr.	Michel	Steam	400	.....	DC.	220	.....	220	.....	.....
	Denver Light and Power Company Limited.	New Denver	Water	55	3	60	2,300	.....	110	.....	2
	Daly Reduction Company Limited.	Hedley	Water	1,800	3	60	6,600	2,200	110	.....	3
	Fernie Electric Department	Fernie	Steam	250	2	60	2,300	220	110	12	528
	Granby Consolidated Min. Sm. and Pr. Co.	Anyox	Water	3,000	3	60	2,200	2,200	110	4	8
	Cranbrook Electric Light Company Ltd.	Cranbrook	Steam	500	2	60	2,200	220	110	8	625
	Grand Forks Electric Department.	Grand Forks	Purchased	.....	3	60	.....	2,200	110	11	375
	Greenwood City Waterworks Company.	Greenwood	Water	200	3	60	1,100	220	110	.....	3
	Kaslo Electric Department	Kaslo	Water	250	2	60	1,100	1,100	114	.....	25
	Kelowna Electric Department	Kelowna	Steam	620	3	60	2,300	220	110	32	515

Kamloops Electric Department.	Kamloops	Water	4,000	3	60	2,200	2,200	110	30	1,125
Mission Water, Light and Power Co. Ltd.	Mission	Water	90	3	60	250	250	110	.....	34
Merritt Electric Department.	Merritt	Steam	210	3	60	2,200	2,200	110	.....	250
Northern Telephone and Power Co. Ltd.	Prince George	Steam	120	3	60	2,300	110	110	.....	58
New Westminster Electric Department.	New Westminster	Purchased	2,000	3	60	.....	.....	110	2	3,200
Nelson Electric Department.	Nelson	Water	3,300	3	60	12,000	2,200	110	50	700
Okanagan Saw Mills Limited.	Enderby	Steam	75	1	60	2,300	.....	110	.....	186
Okanagan Trust Company, Limited.	Naramata	Water	60	3	60	2,000	.....	110	.....	23
Penticton Electric Department.	Penticton	Oil	200	3	60	4,600	220	110	1	380
Prince Rupert Electric Department.	Prince Rupert	Water	2,150	3	60	2,500	220	110	38	760
Powell River Company Limited.	Powell River	Water	9,000	3	50	600	600	110	.....	22
Phoenix Electric Lighting Company.	Phoenix	Purchased	.....	3	60	.....	250	110	1	8
Revelstoke Electric Department.	Revelstoke	Water	1,650	3	60	2,300	220	110	19	725
Rossland Water and Light Company.	Rossland	Purchased	.....	3	60	.....	110	110	.....	101
Sumas Electric Light Company.	Sumas	Purchased	.....	3	60	.....	110	110	1	12
Summerland Electric Department.	Summerland	Water	45	2	60	2,200	.....	110	.....	118
South Kootenay Water Power Company.	Rossland	Purchased	.....	3	60	.....	.....	.....	.....	.....
Sandon Water Works and Light Company.	Sandon	Water	175	.....	100	120	120	110	.....	.....
Salmon Arm Electric Department.	Salmon Arm	Oil	150	3	60	2,200	.....	110	.....	94
Vernon Electric Department.	Vernon	Oil	725	3	60	2,200	220	110	18	650
Vancouver Power Company Ltd.	Vancouver	Water	61,200	3	60	2,200	.....	.....	.....	.....
West Kootenay Power and Light Company.	Rossland	Water	20,000	3	60	2,500	65,000	110	21	.....
Western Canada Power Company Limited.	Vancouver	Water	26,000	3	60	1,400	60,000	115	100	1,275
Alberni Electric Department.	Alberni	Purchased	.....	3	60	.....	.....	110	.....	50
British Columbia Electric Ry. Co. Ltd.	Victoria	Trans. Line	2,300	3	60	.....	2,200	110	122	12,887
Canadian Collieries Limited.	Cumberland	Water	12,000	3	25	13,200	2,200	110	.....	134
Courtenay Electric Light, Heat and Power Co.	Courtenay	.....	.....	.....	.....	.....	.....	110	.....	73

APPENDIX K.

List of Electric Light and Power Companies Registered under the Provisions of the Electricity Inspection Act, etc.—*Continued*

District.	Company.	Address.	Prime Mover.		Phases of System.	Frequency of System.	Generator Voltage.	Service Voltages.		Number of Meters.	
			Type.	Horse Power.				Power.	Ligthting.	Power.	Lighting.
Victoria, B.C. —*Con.*	Cumberland Electric Light Company Ltd.	Cumberland	Purchased.	.....	3	25	.....	115	115	.....	500
	Duncan Electric Power and Lighting Plant.	Duncan	Oil.	200	3	60	2,200	229	110	2	60
	Nanaimo Elect. Light, Pr. and Heating Co	Nanaimo	Water	900	3	60	2,300	2,300	110	10	1,560
	Pemberton Building	Victoria	Steam	113	.....	DC.	110	110	110	3	16
	Port Alberni Electric Department	Port Alberni	Oil.	150	3	60	2,300	.....	110	...	109
	J. A. Sayward	Victoria	Purchased.	.....	3	60	.....	500	110	6	14
	Vancouver Island Power Company.	Victoria	Trans. Line.	25,500	3	60	.....	.....	.....	.....	.....
	Vancouver Island Power Company.	Victoria	Trans. Line.	6,000	3	60	.....	.....	.....	.....	.....
	Victoria Electric Company	Victoria	Purchased.	.....	3	60	.....	.....	110	...	35

INLAND REVENUE DEPARTMENT,
ELECTRICAL BRANCH,

ORMOND HIGMAN,
Chief Engineer.

OTTAWA, July 1, 1916.

J. U. VINCENT,
Deputy Minister.

REPORTS, RETURNS, AND STATISTICS

OF THE

INLAND REVENUES

OF THE

DOMINION OF CANADA

FOR THE FISCAL YEAR ENDED MARCH 31

1916

PART III

ADULTERATION OF FOOD

PRINTED BY ORDER OF PARLIAMENT

OTTAWA
PRINTED BY J. DE L. TACHÉ,
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1916

[No. 14—1916]—A

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REPORT

OF THE

DEPUTY MINISTER OF INLAND REVENUE

August 16, 1916.

To the Honourable E. L. Patenaude,
Minister of Inland Revenue,
Ottawa, Ontario.

Honourable Sir,—I have the honour to herewith submit to you a report of the work performed by the Laboratory of the Inland Revenue Department during the fiscal year ending on the 31st of March, 1916.

This report is prefaced by a general review from the Chief Analyst of the labour performed by Dr. McGill and his assistants. It is therefore unnecessary for me to go into the matter more fully.

I may, however, be permitted to remark that this year's experience has conclusively proven the wisdom of the establishment of branch laboratories. This move was in accord with the needs of the country. The work of the laboratory is assuming each year greater importance. The public is relying more and more upon the publication of our standards and bulletins as guides towards the acquisition and consumption of pure foods and drugs.

In fact, under present conditions, the Laboratory can hardly keep pace with public requirements.

The Department has been endeavouring to secure the services of an additional number of analysts, but without success, and I am afraid the remuneration at present paid to analysts is insufficient to induce them to enter the Government Service. Better salaries seem to be available in the industrial fields.

The demand for good analysts at a high salary is growing very fast, more especially since the beginning of the war. This is due to the fact that many enterprising Canadians have endeavoured to establish in this country manufactories of articles which were previously imported.

I am, therefore, of the opinion, that the Department will have to be prepared to pay higher salaries to analysts, if it would be sufficiently equipped and manned in proportion to the amount of work to be done.

Sometime ago I suggested to the Chief Analyst that a material saving could be effected in the printing of the Annual Report by eliminating therefrom that part of each bulletin in which is contained the list of the samples and the results of their analysis. There is no practical advantage in including these lists in the Report. The Department always keeps a large stock of bulletins on hand, which are distributed among the parties interested, or sent to them upon request. I am glad to see that the Chief Analyst has agreed with this view.

I have the honour to be, Honourable Sir,

Yours very truly,

J. U. VINCENT,
Deputy Minister of Inland Revenue.

OTTAWA, July 20, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue,
Ottawa, Ont.

SIR,—I beg to report as follows upon the work of these laboratories for the fiscal year ending 31st March, 1916.

In my report of last year I gave an account of certain important changes contemplated and partly effected in the organization of the Laboratory Branch of this department. These consist essentially in the establishment of branch laboratories or so-called sub-laboratories, at various important commercial centres. The sub-laboratories in question are to be regarded as parts of a system of which the central laboratory at Ottawa is the head. The work done at the sub-laboratories is identical in kind with that performed at Ottawa and is reported to the department through the chief analyst, who is responsible for its amount and character.

Because of this fact, it is desirable that the analysts in charge of the sub-laboratories should be men who have had experience at Ottawa, and who possess the confidence of the chief analyst.

Three sub-laboratories are now in working order, namely, at Halifax, Winnipeg, and Vancouver. It is to be expected that others will be established at the more important points, in the not distant future. Many advantages should manifest themselves consequent upon a system which comprehends at the same time centralization, in the sense of control at Ottawa, and localized activity. Canada is a country of so wide extent that great delays are inevitable, and much expense involved, when all samples of foods, drugs, and fertilizers are analysed at Ottawa. Many articles of a more or less perishable nature cannot be effectively inspected from a single centre.

The following synopsis of work done at our sub-laboratories during the first year of their existence will be found interesting:—

Halifax.—The laboratory is temporarily located at 48-50 Bedford Row. Mr. C. C. Forward was placed in charge in December, 1914, and Mr. A. J. Landry was sent out as his assistant in September, 1915. Both of these gentlemen had been, for some years, on the staff at Ottawa. This was the first of the sub-laboratories to be put into commission; and Mr. Forward was without assistance until September, 1915. He reported 144 samples of various character, up to the 31st March, 1915.

The record of samples worked at Halifax during the fiscal year covered by the present report (1st April, 1915, to 31st March, 1916) is as follows:—

Samples worked under instructions from Ottawa	842
For local excise	21
Various local samples	28
Total	891

In addition to the above, five Winchesters of Normal Soda were supplied to the excise service.

Winnipeg.—The laboratory is situated in the upper flat of the post office building at the corner of Magnus avenue and Main street. Mr. E. L. C. Forster was placed in charge in April, 1915, with Mr. W. A. Davidson, as assistant, in September, 1915, both gentlemen having been members of the staff at Ottawa. This sub-laboratory reports as follows for the fiscal year ending March 31, 1916:—

Samples worked under instructions from Ottawa	474
Local samples	10
Total	484

In addition to the above, twenty-two samples of standard solutions were supplied to the excise service.

Vancouver.—The laboratories are temporarily located at 249 Hastings street. Mr. J. A. Dawson was placed in charge in February, 1915, with Mr. P. T. Kirwan, as assistant, in August, 1915, both gentlemen having been on the staff at Ottawa. The following work is reported for the year ending March 31, 1916:—

Samples worked under instructions from Ottawa	765

In addition, five standard solutions were prepared for use in Excise service.

When it is remembered that all these sub-laboratories have been but recently equipped; that the equipment is more or less incomplete, even now; that the technical staffs have no clerical or other assistance, and in two cases occupy temporary quarters, necessarily more or less ill-suited to laboratory purposes, I regard the above records as highly creditable, and I have much pleasure in presenting them to you.

The manning of these sub-laboratories by men drafted from the technical staff at Ottawa has seriously reduced this staff, and made necessary the appointment of additional analysts. My last report included a statement of our technical staff as organized in March, 1915 (see departmental letter No. 126722 of file 108043).

The personnel of this staff was then as follows:—

Technical Staff of Laboratory Branch at March 31, 1915.

— —	Title.	Name.
At Ottawa	1 Chief Analyst	A. McGill.
	2 Deputy "	A. Lemoine.
	3 First Assistant Analyst	A. Valin.
	4 Second "	V. Kitts.
	5 Third "	E. Forster.
	6 Fourth "	A. Couture.
	7 Fifth "	P. Kirwan.
	8 Sixth "	A. Landry.
	9 Seventh "	S. J. Cook.
	10 Eighth "	W. Davidson.
	11 Ninth "	F. Collier.
	12 Laboratory Assistant	Miss Wright.
At Halifax	13 In charge	C. Forward.
	14 Assistant	Vacant.
At Winnipeg	15 In charge	—
	16 Assistant	—
At Vancouver	17 In charge	J. Dawson.
	18 Assistant	Vacant.

The following changes were made during the year 1st April, 1915, to 31st March, 1916:—

Mr. E. L. C. Forster, Third Assistant Analyst, was sent to Winnipeg, in charge of the sub-laboratory at that place, in April, 1915.

Mr. A. P. Couture, Fourth Assistant Analyst, resigned in January, 1916.

Mr. P. T. Kirwan, Fifth Assistant Analyst, was sent in charge at Vancouver, in August, 1915.

Mr. A. J. Landry, Sixth Assistant Analyst, was sent as assistant to Halifax in September, 1915.

Mr. W. A. Davidson, Eighth Assistant Analyst, was sent as assistant to Winnipeg in September, 1915.

The following shows the personnel of the Technical staff, as it existed on 31st March, 1916:—

—	Title.	Name.
At Ottawa	1 Chief Analyst	A. McGill.
	2 Deputy "	A. Lemoine.
	3 First Assistant Analyst	A. Valin.
	4 Second "	V. Kitto.
	5 Third "	S. J. Cook.
	6 Fourth "	F. Collier.
	7 Fifth "	L. Westman.
	8 Sixth "	Vacant.
	9 Seventh "	"
	10 Eighth "	"
	11 Ninth "	"
	12 Laboratory Assistant	Miss Wright.
At Halifax	13 In charge	C. C. Forward.
	14 Assistant	A. J. Landry.
At Winnipeg	15 In charge	E. L. C. Forster.
	16 Assistant	W. A. Davidson.
At Vancouver	17 In charge	J. A. Dawson.
	18 Assistant	P. T. Kirwan.

Mr. L. E. Westman was appointed as Fifth Assistant Analyst in April, 1915.

It will be seen that five vacancies on the Ottawa staff remained unfilled for the following periods:—

1. By removal of Mr. Forster to Winnipeg, from April, 1915—eleven months.
2. By removal of Mr. Kirwan to Vancouver, from August, 1915—seven months.
3. Removal of Mr. Landry to Halifax, from September, 1915—six months.
4. Removal of Mr. Davidson to Winnipeg from September, 1915—six months.
5. By resignation of Mr. A. P. Couture, from January, 1916—two months.

A total of thirty-two months. To compensate this reduction of the Ottawa staff, we have one appointment (Mr. Westman) in April, 1915, eleven months. Thus the Ottawa staff has been below normal during the past fiscal year, by a quantity which may be stated as the work of an analyst for twenty-one months.

It is hoped that, during the year now current, the vacancies above indicated will be filled; and additional technical assistance furnished.

During the fiscal year covered by this report, the following analyses have been made upon samples collected under the provisions of the Adulteration Act, and the results have been published in Bulletin form:—

Number of Bulletin.	Subject.	Number of Samples.	Number of Bulletin.	Subject.	Number of Bulletin.
310	Milk in smaller towns and villag.	205	325	Maple syrup	243
311	Shorts or middlings	189	326	Malt extract	152
312	Molasses	140	327	Bleaching powder	101
313	Vinegar	245	328	Salad oil	159
314	White pepper	387	329	Pot and Pearl barley	191
315	Tincture of opium	127	330	Breakfast foods	33
316	Native wine	187	331	Turpentine	212
317	Fertilizers as sold	420	332	Linseed oil	210
318	Milk in smaller towns and villag.	209	333	Formalin	68
319	Chop feed	149	334	Butter	138
320	Table syrups other than maple	200	335	Cream of tartar	180
321	Lime juice	83	336	Tincture of ginger	65
322	Maple confections	58	337	Lemon flavouring extract	223
323	Saltpetre	166			
324	Maple sugar	234		Total	4,974

SESSIONAL PAPER No. 14

The Bulletins above enumerated, in continuance of a custom which has been observed since 1887, are reprinted with this report. I would respectfully advise that the practice referred to be discontinued, in the interest of economy. Sufficiently large editions are always published in the first instance, to meet normal demands; and it would but little increase the cost of publication were sufficiently large first editions printed to enable us to hold over a surplus, in case of unusual demand. In my opinion, a brief synopsis of their contents would prove sufficient for the purposes of the annual report.

In addition to the work above referred to, 682 samples of various kinds were analysed in the laboratories at Ottawa. These are enumerated below:

Acetic acid	67	Maple sugar	31
Acetone	1	Maple syrup	64
Alcohol	3	Mass wine	1
Allspice	1	Malt extract	1
Amyl acetate	1	Medicine	1
Aspirin	5	Methyl alcohol	1
Baking powder	2	Methylated spirits	1
Beer	22	Middlings	4
Benzine	1	Milk	2
Benzol	5	Milk powders	4
Brandy	1	Nitre	2
Bread improver	1	Oil	1
Butter	52	Oil of lux	1
Calf meal	1	Olive oil	1
Cheese	4	Paint	30
Chloroform	11	Pepper	17
Cider	1	Pepper shells	1
Clarine tablets	1	Pills	1
Coffee	4	Preservaline	4
Cream of tartar	3	Rope	2
Denatured alcohol	2	Saltpetre	1
Disinfectants	4	Sausages	2
Dubbin	6	Sea water	1
Ether	7	Screenings	1
Evaporated apples	2	Shortening	4
Feed	1	Shorts	2
Feed barley	1	Soap	2
Fertilisers	20	Spice	5
Fish biscuits	2	Spirits	71
Flour	6	Strawberries	1
Fusel oil	19	Sugar	2
Gasoline	2	Tablets	3
Ginger	1	Table syrup	1
Headlight oil	1	Tartarine	1
Honey	4	Tea	2
Insecticide	1	Temperance	1
Iodine	1	Tincture of opium	1
Jam	87	Turpentine	1
Katalys powder	1	Vanilla extract	2
Ketchup	2	Vinegar	4
Krelo	1	Water	17
Lemon extract	1	Whiskey	1
Liver oil	1	Wine	1
Mace	2	Wood alcohol	2
Malt liquors	4	Wood spirit	12
Maltzymore	1		
Maple confections	4	Total	682

At Ottawa, 205 samples of vinegar were tested for excise purposes, and the following solutions supplied:—

	Winchesters
Normal soda	81
" sulphuric acid	4
" acetic acid	4
Solution phenolphthalein	1
Total	205

Standards for fruit and fruit products as fixed by Order in Council of 17th October, 1912 (see G. 1044) were amended as regards the moisture limit for evaporated apples, by Order in Council of 16th March, 1916 (see G. 1238). The limit for moisture is reduced from 27 per cent to 25 per cent.

A great deal of work has been done in connection with the standardization of various classes of foods; but although this has resulted in the accumulation of much valuable data, our acquisitions are not sufficiently complete to justify definite recommendation, having legislation in view.

I have the honour to be, Sir,

Your obedient servant,

A. McGILL,
Chief Analyst

APPENDIX A.

BULLETIN No. 310—MILK, IN SMALLER TOWNS AND VILLAGES.

OTTAWA, April 12, 1915.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue,

SIR,—I have the honour to hand you a report upon two hundred and eight (208) samples of milk as purchased by our inspectors in smaller towns and villages of Canada. This report may be regarded as a continuation of the work published as Bulletin No. 298—and will be continued, from time to time.

The samples now reported were procured in January, February and March of this year and were taken in hand immediately on receipt at the laboratory, so that no allowance can be made for alteration of the article, except in the cases especially mentioned, (3956, 3957 and 3958), where, through some error on the part of the inspector, the samples were received in spoiled state.

The results of inspection are thus summarized ;—

Samples found genuine	168
" doubtful	16
" not up to standard	21
" spoiled when received	3
Total	208

As regards the fat content of the two hundred and five samples analyzed, the following is of interest :—

Fat above 5 0	per cent in	23	samples
" 4·5	"	22	"
" 4·0	"	43	"
" 3·5	"	53	"
" 3·25	"	32	"
Fat below 3.25	"	32	"
Total		205	"

It is quite apparent that our standard of 3 25 per cent fat is a very reasonable minimum fat requirement, since it is found in 173 samples out of 205, or in 85 per cent of the total collection.

I beg to recommend publication of this report as Bulletin No 310.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1915.							
Mar. 11	Milk	64146	R. H. Means, Winsdor, N.S.	1 qt.	7	Vendor	
" 11	"	64147	R. Redder, "	1 "	7	"	
" 11	"	64148	T. H. Curry, "	1 "	7	"	
" 12	"	64149	Acadia Dairy Co., Wolfville, N.S.	1 "	nil.	Geo. Sheam, Grand Pre., N.S.	
" 12	"	64150	Wm. Regan, "	1 "	8	Vendor	
" 16	"	64151	A. Young, New Town, Lunenburg, N.S.	1 "	7	"	
" 16	"	64152	J. D. Selig, "	1½ pts.	4	"	
" 16	"	64153	Paul Mosher, "	1 qt.	7	"	
" 18	"	64154	A. J. Keddy, Dartmouth, N.S.	1 "	9	"	
" 18	"	64155	H. E. Walker, "	1 "	9	T. Ritchie, Gaston Rd., Coal Harbour, N.S.	
DISTRICT OF NEW BRUNSWICK—							
Feb. 16	Milk	65901	Cliff Thompson, St. Stephen, N.B.	1 qt.	10	Vendor	
" 16	"	65902	Byron Hayman "	1 "	nil.	"	
" 16	"	65903	J. R. Waller "	1 "	10	"	
" 22	"	65904	Chas. A. Peabody, Woodstock, N. B.	1 "	10	"	
" 22	"	65905	Peabody Bros., "	1 "	10	"	
" 22	"	65906	Geo. W. Boyer, "	1 "	nil.	"	
" 24	"	65907	Nap. Turcotte, River Bank, Grand Falls, N.B	1 "	15	"	
Mar. 2	"	65908	Maritime Dairy Co ,Sussex, N.B.	1 "	10	Robt. Shannon, Sussex, N.B.	
" 2	"	65909	Sussex Cheese and Butter Co., "	1 "	6		King's County Farmers.
" 2	"	65910	T. H. Brown, "	1 "	10	Freeze Brothers, Sussex, N.B.	
DISTRICT OF QUEBEC CITY—							
Jan. 28	Milk	56304	S. F. Fleury, Tifford	1 qt.	15		F. F. Flury
" 28	"	56305	Thon. Ward, Tifford	1 "	10	Vendor	
" 28	"	56306	T. Dacre, Tifford	1 "	10	"	

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.				No. of Sample.	Remarks, and Opinion of the Chief Analyst.
	Sp. Gr.	Total Solids.	Fat.	Non-fat Solids.		
R. J. WAUGH, INSPECTOR.						
		p. c.	p. c.	p. c.		
.....	1·0312	12·22	3·64	8·58	64146	Genuine.
....	1·0312	12·83	4·18	8 65	64147	"
....	1·0261	10·28	3 09	7·19	64148	Below standard in fat and solids.
.....	1·0332	12·96	4·05	8 91	64149	Genuine.
. ...	1·0277	12·60	4·70	7·90	64150	Non-fat solids low. Pass.
....	1·0324	13·00	4 16	8 84	64151	Genuine.
....	1·0288	15·40	7 05	8 35	64152	"
....	1·0274	11·75	4·14	7 61	64153	Non-fat solids low.
....	1·0348	12·15	2·81	9 34	64154	Fat too low.
. .. .	1·0274	10 25	2·80	7·45	64155	Fat and total solids low.
JOHN C. FERGUSON, INSPECTOR.						
. ...	1·0321	12 71	4 05	8·66	65901	Genuine.
....	1 0315	11 77	3 38	8 39	65902	"
....	1 0321	12 72	4 08	8·64	65903	"
. ...	1·0334	13 33	4 27	9 06	65904	"
... .	1 0314	11 71	3 27	8 44	65905	"
. . . .	1·0360	12 33	2 78	9 55	65906	Fat too low.
....	1·0310	13 04	4 43	8 61	65907	Genuine.
. ...	1 0320	12 50	3 76	8 74	65908	"
.. . .	1 0333	13 60	4 55	9 05	65909	"
....	1 0336	12·80	3 74	9 06	65910	"
F. X. W. E. BELAND, INSPECTOR.						
....	1 035	13 89	4 46	9 43	66304	Genuine.
....	1 029	13 10	5 16	7 94	66305	Non-fat solids low. Pass.
....	1 033	14 89	5 96	8 93	66306	Genuine.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF QUEBEC CITY—							
1915.							
Jan. 28	Milk.. ..	56307	J. Brown, Tifford.....	1 qt..	10	Vendor	....
" 28	" ...	56308	N. Roy, Tifford.....	1 "	10	"	.....
" 27	"	60799	L. Begin, 2ème Ave.,Stadacona.	1 "	10	"	....
" 27	"	60800	F. X. Turgeon, 2ème Ave., Stadacona.	1 "	10	"	.....
" 27	"	57301	A. Dorion, Gros Pin,Charlesbourg.	1 "	10	"	.....
" 27	"	57302	N. Dorion, Gros Pin,Charlesbourg.	1 "	10	"	....
" 27	"	56303	T. Conway, Gros Pin, Charlesbourg.	1 "	10	"	.....
DISTRICT OF QUEBEC PROVINCE—							
Jan. 19	Milk..	3748	W. Garneau, Thetford Mines.	1 qt..	15	....	....
" 19	"	3749	J. A. Cyr, Robertsonville, Megantic.	1 "	15	....	.....
" 21	"	3752	David Aubert, St. Lewis...	1 "	15	Vendor..... . .	.. ..
" 22	"	3753	Alphonse Layeux, St. Joseph de Lévis.	1 "	15	"	.....
" 23	"	3754	Olivier Samson, St. Joseph de Levis.	1 "	15	"	....
" 28	"	3769	Oscar Côté, St. Joseph de Lévis.	1 "	15	"	....
" 29	"	3772	E. Juneau, St. Joseph Malo.	1 "	15	"	.....
Feb. 5	"	3785	A. Drolet, Ancienne Lorette.	1 "	15	"	....
" 5	"	3786	F. X. Latulippe, Charlesbourg.	1 "	15	"	....
" 12	"	2596	Antoine Marceau, Armagh.	1 "	6	....	....
" 12	"	2597	Charle Bernard, Armagh...	1 "	6	....	.....
" 12	"	2598	Exavier Boulanger, Armagh	1 "	6	....	... .
" 12	"	2599	André Audet, Armagh.....	1 "	6	....	....
" 10	"	3527	Alfred Roy "	1 "	6	.....	....
" 11	"	3528	Louis Leblond, St. Neri....	1 "	6	....	....
" 8	"	3505	Joseph Fortier, St. Lazare..	1 "	6	....	... .
" 9	"	3515	Alfred Ruelle, St. Charles..	1 "	6	... .	.....
" 9	"	3516	Joseph Couture, " ..	1 "	6	....	. ...
" 10	" .. .	3521	Joseph Vaillere, St. Michel.	1 "	6	... .	... .

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. Gr.	Total Solids.	Fat.	Non-fat Solids.		
Concluded.						
		p.c.	p.c.	p.c.		
.....	1·034	15·21	5·68	9·53	56307	Genuine.
.....	1·033	12·28	3·56	8·72	56308	"
.....	1·034	14·37	5·10	9·27	60799	"
.....	1·033	13·60	4·23	9·37	60800	"
.....	1·033	13·60	4·52	9·08	57301	"
.....	1·035	13·36	4·23	9·13	57302	"
.....	1·033	13·47	4·47	9·00	56303	"
J. E. AUDET, O. BROCHU, N. CADIEUX, TEMPORARY INSPECTORS.						
.....	1·033	12·62	3·66	8·96	3748	Genuine.
.....	1·033	13·54	4·84	8·70	3749	"
.....	1·031	12·45	4·38	8·08	3752	Non fat solids low. Pass.
.....	1·032	15·72	6·96	8·76	3753	Genuine.
.....	1·034	13·63	4·76	8·87	3754	"
.....	1·032	17·31	8·29	9·02	3769	"
.....	1·035	13·38	4·19	9·19	3772	"
.....	1·034	12·38	3·33	9·05	3785	"
.....	1·033	13·40	4·21	9·19	3786	"
.....	1·036	14·31	4·93	9·38	2596	"
.....	1·030	16·01	7·20	8·81	2597	"
.....	1·032	14·31	5·68	8·63	2598	"
.....	1·036	13·17	4·06	9·11	2599	"
.....	1·032	13·12	4·46	8·66	3527	"
.....	1·034	15·71	6·43	9·28	3528	"
.....	1·035	13·08	4·05	9·03	3530	"
.....	1·035	12·59	3·75	8·84	3515	"
.....	1·039	14·06	4·11	8·95	3516	"
.....	1·036	13·96	4·63	9·33	3521	"

BULLETIN No. 310—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF QUEBEC PROVINCE—				
1915.							
Jan. 21	Milk..	249	Maurice Durand, St. Jerome, P.Q.	24 oz.	5	....	.....
" 21	"	250	Paul E. Leclair, "	24 "	5	....	....
" 21	"	251	Gilbert Pelletier, "	24 "	5	.....	.....
" 21	"	252	Charlemange Taillon, "	24 "	7	.....	....
" 21	"	253	François Lecomte "	24 "	5	....	.....
Feb. 2	"	255	J. A. Fournelle, St. Agathe des Monts.	24 "	5	.....	.....
" 2	"	265	Jules Gundon, "	24 "	5	....	....
" 10	"	266	Maurice Durand, St. Jerome.	24 "	7	.....	.....
			DISTRICT OF EAST QUEBEC—				
Jan. 26	Lait.....	56428	Joseph Gazè, Montmagny.	1 pt.	10	Vendor.....	.....
" 26	"	56429	Joseph Baumont, Montmagny.	1 "	10	"	.....
" 26	"	56430	Eugene Bernachez, Montmagny.	1 "	10	"	.....
" 27	"	56431	Louis Tetu, Montmagny. ..	1 "	10	"	....
" 29	"	56432	H. Lebel, Rivière du Loup..	1 "	10	"	.....
" 29	"	56433	C. Paradis, Rivière du Loup	1 "	10	"	....
" 29	" . ....;	56434	Benjamin Michaud, Rivière du Loup.	1 "	10	"	....
" 29	"	56435	Etienne Roy, Rivière du Loup.	1 "	10	"	.....
" 29	"	56436	Jos. Rousselle, Rivière du Loup.	1 "	10	"	.....
" 29	"	56437	Jos. Belanger, Rivière du Loup.	1 "	10	"	....
			DISTRICT OF THREE RIVERS—				
Jan. 22	Milk.....	3955	Luc. Charette, L'Assomption.	1½ pt.	6	Vendor	.. ..
" 25	"	3956	J. B. Renaud, St. Paul....	1½ "	8	"	....
25	"	3957	A. Pelland, St. Elizabeth...	1½ "	8	"	.....
" 25	"	3958	J. Latour, " ..	1½ "	8	"	.....
" 26	"	3959	Narcisse Joly, St. Felix Valois.	1½ "	8	"	.....

SESSIONAL PAPER No. 14

MILK.

Inspector's Report, (Is not an expression of opinion).	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. Gr.	Total Solids.	Fat.	Non-fat Solids.		
Concluded.						
		p. c.	p. c.	p. c.		
....	1·036	12·83	3·99	8·84	249	Genuine.
....	1·034	13·51	4·17	9·34	250	"
....	1·033	14·59	4·72	9·87	251	"
....	1·033	13·66	3·97	9·69	252	"
....	1·035	14·00	4·29	9·71	253	"
....	1·023	9·34	2·97	6·37	255	Solids and fat too low
....	1·034	12·99	3·92	9·07	265	Genuine.
....	1·035	13·17	4·21	8·96	266	"
ALF. PELLETIER, TEMP. INSPECTOR.						
....	1·033	12·91	3·68	9·23	56428	Genuine.
....	1·034	12·09	3·24	8·85	56429	"
....	1·034	12·31	3·44	8·87	56430	"
....	1·032	16·91	8·12	8·79	56431	"
....	1·034	12·87	3·80	9·07	56432	"
....	1·033	12·19	3·54	8·65	56433	"
....	1·036	13·91	4·77	9·14	56434	"
....	1·035	13·87	4·52	9·35	56435	"
....	1·036	13·72	4·50	9·22	56436	"
....	1·034	13·12	3·98	9·14	56437	"
D. V. P. LAVALLEE, INSPECTOR.						
....	1·032	12·07	3·37	8·70	3955	Genuine.
....	Sour.	.....	.....	.....	3956	Not worked.
....	"	.....	.....	.....	3957	"
....	"	.....	.....	.....	3958	"
....	1·035	13·44	4·14	9·30	3959	Genuine.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer of Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufactarer.	Furnisher.
DISTRICT OF THREE RIVERS—							
1915.							
Jan. 26	Milk	3960	Henri Laferrière, St. Felix Valois.	1½ pt.	8	Vendor	
" 27	"	3961	Nap. Coutu, Joliette.	1½ "	5	"	
" 27	"	3962	Ludger Peltier, Joliette	1½ pt.	8	"	
" 27	"	3963	Jos. Coderre, Joliette	1½ "	8	"	
Feb. 8	"	3924	Elie Laferiere, St. Pierre	1½ "	10	"	
" 8	"	3925	Jos. Desrosiers, St Cecile	1½ "	10	"	
" 8	"	3926	Jos. Beausoleil, St. Felix Valois.	½ "	5	"	
DISTRICT OF EASTERN TOWNSHIPS—							
Feb. 9	Milk	1677	H. Cole, Richmond East	1 qt.	7	Vendor	
" 9	"	1678	W. H. McLaughlin, Richmond East.	1 "	7	"	
" 9	"	1679	J. C. Martin, Richmond East.	1 "	7	"	
" 10	"	1680	Eugene Pellerin, Victoriaville.	1 "	8	"	
" 10	"	1682	P. Coulombe, Victoriaville	1 "	8	Unknown	
" 11	"	1684	A. F. Andrews, Coaticook	1 "	7	Vendor	
" 11	"	1685	V. Davignon "	1 "	7	"	
" 12	"	1686	E. St. Laurent, Thetford	1 "	8	"	
" 12	"	1687	F. Daudier, Thetford Mines	1 "	8	"	
" 16	"	1688	L. Wheeler, Windsor Mills	1 "	7	"	
DISTRICT OF MONTREAL—							
Feb. 1	Milk	62681	A. Laliberte, 23E Hickson ave., Verdun.	1½ pt.	8	G. W. Rush, Verdun.	
" 1	"	62682	C. Trepanier, 235 Ethel st., Verdun.	1½ "	9	Unknown	
" 1	"	62683	D. Emond, 311 Gertrude street, Verdun.	1½ "	8	A. Martin, Verdun	
" 1	"	62684	R. W. Hadley, 35 Gordon ave., Verdun.	1½ "	8	J. A. Monteith	
" 2	"	62685	Dionne & Dionne, 4120 St. Catherine st. W., Westmount.	1½ "	9	A. D. Buchanan, Westmount.	

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. Is not an expression of opinion.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr.	Total solids.	Fat.	Non fat solids.		
Concluded.						
		p. c.	p. c.	p. c.		
....	1 035	13 30	4·05	9·25	3960	Genuine.
....	1·035	13·46	4·11	9·35	3961	"
.. ..	1 030	11·05	3·10	7·96	3962	Solids and fat too low. Pass.
....	1.033	13·95	4 73	9·22	3963	Genuine.
....	1·029	17·37	9·02	8 35	3924	"
. . ..	1·035	12·60	3·57	9 03	3925	"
....	1·033	15·03	6 07	8·96	3926	"
J. C. ROULEAU, INSPECTOR.						
....	1 030	14·35	5 68	8·67	1677	Genuine.
. . ..	1 031	15 44	7·08	8 36	1678	"
....	1·033	12 97	4 13	8 84	1679	"
....	1·032	11 39	2 92	8 47	1680	Fat too low.
. . ..	1 023	9·50	2 81	6 24	1682	Fat and solids too low.
. ...	1·035	11·92	3 06	8 86	1684	Fat below standard. Pass.
. ...	1 031	11·66	3 83	7 83	1685	Solids below standard. Pass.
....	1 034	13·02	3 85	9 17	1686	Genuine.
....	1 034	12 39	3·25	9 14	1687	"
....	1 034	12·66	3 87	8 79	1688	"
D. F. KEARNEY, INSPECTOR.						
....	1 034	12 72	3 90	8 82	62681	Genuine
....	1 035	12 19	3 48	8 71	62682	"
.....	1 033	11 79	3 60	8 19	62683	Non fat solids low. Pass.
....	1 034	12 31	3 61	8 70	62684	Genuine.
....	1 034	11 75	2 81	8 94	62685	Fat too low.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF MONTREAL—							
1915.							
Feb. 2	Milk	62686	E. J. Quinn, 4201 St. Catherine st. W., Westmount.	1½ lbs.	9	Geo. A. West	
" 3	"	62687	Dan.e N. Dupuis, 94 Notre Dame st., Lachine.	1½ "	9	X. Belanger, Lachine.	
" 3	"	62688	J. Culos, 78b Notre Dame St., Lachine.	1½ "	10	Unknown	
" 3	"	62689	John Philips & Co., 78 Notre Dame st., Lachine.	1½ "	10	G. W. Dagenais, Lachine.	
" 3	"	62690	P. Colaris, 70 Notre Dame st., Lachine.	1½ "	15	Unknown	
DISTRICT OF VALLEYFIELD—							
Feb. 9	Milk	58236	S. Langlois, St. John, P.Q.	1 qt.	10		
" 9	"	58237	Gustave Poirier, "	1 "	10		
" 9	"	58238	Joseph Poirier, "	1 "	10		
" 9	"	58239	Jerme Bechard, "	1 "	10		
" 9	"	58240	William Copping, "	1 "	10		
" 9	"	58241	O. Depelteau, "	1 "	10		
" 9	"	58242	E. Senecal, "	1 "	10		
" 17	"	58243	John Cassidy, Masson	1 "	10		
" 17	"	58244	H. F. Cosgrove, Buckingham.	1 "	10		
" 17	"	58245	W. H. Connolly, Buckingham.	1 "	10		
DISTRICT OF OTTAWA—							
Jan. 23	Milk	63475	A. W. Wright, Almonte	1 qt	10	Vendor	
" 23	"	63476	John Andrews, "	1 "	10	"	
" 23	"	63477	Wm. Robertson, "	1 "	10	Unknown	Unknown.
" 23	"	63478	W. J. Coutanche, "	1 "	10		Farmers
" 26	"	63479	Wm. Brady, Perth, Ont	1 "	10	Vendor	
" 26	"	63480	Ed. Watt, Perth, Ont	1 "	10	"	
" 26	"	63481	H. E. Chaplin, Perth, Ont	1 "	10	"	
" 26	"	63482	M. Dodds, Perth, Ont	1 "	10	"	

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr.	Total solids.	Fat.	Non fat solids.		
Concluded.						
		p.c.	p.c.	p.c.		
.....	1·035	10·40	2·08	8·32	62686	Fat and solids low.
.....	1·034	12·52	3·75	8·77	62687	Genuine.
.....	1·036	11·27	2·46	8·81	62688	Fat too low.
.....	1·035	12·15	2·99	9·16	62689	Fat too low—pass.
.....	1·036	14·41	4·79	9·62	62690	Genuine.
J. J. COSTIGAN, ACTING INSPECTOR.						
.....	1·035	14·14	4·65	9·49	58236	Genuine.
.....	1·035	12·55	3·28	9·27	58237	"
.....	1·035	13·13	3·76	9·37	58238	"
.....	1·034	13·72	4·44	9·28	58239	"
.....	1·034	12·39	3·33	9·06	58240	"
.....	1·035	12·89	3·70	9·19	58241	"
.....	1·031	12·42	3·60	8·82	58242	"
.....	1·036	12·74	3·58	9·16	58243	"
.....	1·033	11·63	3·31	8·32	58244	Solids slightly low—Pass.
.....	1·034	13·86	4·53	9·33	58245	Genuine.
J. A. RICKEY, INSPECTOR.						
.....	1·035	12·15	2·91	9·24	63475	Fat too low—Doubtful.
.....	1·030	11·29	3·48	7·81	63476	Non fat solids low—Doubtful.
.....	1·033	12·99	4·03	8·96	63477	Genuine.
.....	1·034	12·50	3·38	9·12	63478	"
.....	1·033	12·27	3·66	8·61	63479	"
.....	1·034	13·00	3·87	9·13	63480	"
.....	1·034	12·67	3·73	8·84	63481	"
.....	1·034	12·73	3·92	8·81	63482	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF OTTAWA—							
1915.							
Jan. 28	Milk	63482	Jas. Small, Prescott	1 qt.	10	Vendor	
" 29	"	63484	J. Adams, Prescott	1 "	10	"	
" 30	"	63485	Wm. Ward, Prescott	1 "	10	"	
" 30	"	63486	P. A. Munroe, Maxville	1 "	10	"	
DISTRICT OF KINGSTON—							
Feb. 8	Milk	66501	J. Shibley, Harrowsmith	1 qt	5	Vendor	
" 8	"	66502	F. Walker, Harrowsmith	1 "	5	"	
" 8	"	66503	B. W. Ruttan, Harrowsmith	1 "	5	"	
" 8	"	66504	L. H. " Harrowsmith	1 "	5	"	
" 9	"	66505	F. Redmond, Sydenham	1 "	5	"	
" 9	"	66506	E. B. Sills, Sydenham	1 "	6	"	
" 9	"	66507	W. Trovsdale, Sydenham	1 "	5	"	
" 9	"	66508	W. Hobbs, Sydenham	1 "	6	"	
" 9	"	66509	J. W. Davis, Sydenham	1 "	5	"	
" 9	"	66510	J. Foxton, jr., Sydenham	1 "	5	"	
DISTRICT OF TORONTO—							
Feb. 16	Milk	64665	Horner Bros., Richmond Hill.	1 qt.	7	Vendors	
" 16	"	64666	W. M. Watson, Aurora	1 "	8		Farmer
" 16	"	64667	Thos. Grimshaw, Aurora	1 "	8		"
" 16	"	64668	Theo. Bolton, Newmarket	1 "	7		E. N. Primrose
" 16	"	64669	J. T. Wright, Newmarket	1 "	8		A. Robinson
" 17	"	64670	W. M. McKay, Sutton	1 "	7	Vendor	
" 17	"	64671	A. Carpenter, Sutton	1 "	6	"	
" 18	"	64672	O. Bennett, Oshawa	1 "	7		George Reason Oshawa.
" 18	"	64673	Geo. Hart, Oshawa	1 "	7		Farmers
" 18	"	64674	Wm. Henderson, Cedardale	1 "	7		"

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MILK.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Sp. Gr.	Total Solids.	Fat.	Non Fat Solids.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.						
		p. c	p. c.	p. c.		
....	1·035	11·97	3·25	8·72	63483	Genuine.
.....	1·034	13·24	4·04	9·20	63484	"
....	1·035	12·76	3·91	8·85	63485	"
....	1·035	12·64	3·76	8·88	63486	"
JAS. HOGAN, INSPECTOR.						
.....	1·035	12·00	3·06	8·94	66501	Genuine.
....	1·033	10·29	2·28	8·01	66502	Solids and fat low.
....	1·035	13·51	4·30	9·21	66503	Genuine.
.....	1·035	14·31	4·96	9·35	66504	"
....	1·036	13·80	4·75	9·05	66505	"
. . ..	1·033	12·93	3·94	8·99	66506	"
. .. .	1·036	14·06	4·34	9·72	66507	"
... .	1·033	13·10	4·02	9·08	66508	"
....	1·033	15·31	6·26	9·05	66509	"
.. ..	1·035	13·84	4·28	9·56	66510	"
H. J. DAGER, INSPECTOR.						
....	1·034	12·73	3·90	8·83	64665	Genuine
.....	1·033	11·58	3·02	8·56	64666	Fat slightly low. Pass
....	1·034	12·91	4·07	8·84	64667	Genuine.
....	1·034	11·42	2·74	8·67	64668	Fat too low
....	1·033	12·12	3·14	8·98	64669	Genuine.
....	1·041	15·13	4·72	10·41	64670	"
....	1·037	13·11	3·77	9·34	64671	"
....	1·036	12·43	3·33	9·10	64672	"
. ...	1·034	13·82	4·77	9·05	64673	"
....	1·036	12·59	3·28	9·31	64674	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF HAMILTON—				
1915.							
Mar. 2	Milk	66814	W. Oliver, No. 1 Route, Branchton.	1 qt.	7	Vendor and other sources.	
" 2	"	66815	I. G. Good, Preston	1 "	7	Farmers	
" 2	"	66816	Wm. Parr, Hespler	1 "	7	"	
" 3	"	66817	M. Dubrich, Waterloo	1 "	7	"	
" 3	"	66818	J. G. Main, Berlin	1 "	8	Vendor and other sources.	
" 10	"	66819	R. C. Mills, Burford	1 "	7	Farmers	
" 11	"	66820	M. Gilmore, Grimsby	1 "	8	"	
" 11	"	66821	J. E. Lawson, Grimsby	1 "	8	"	
" 12	"	66822	W. G. Passmore, Dundas	1 "	8	"	
" 12	"	66823	Robert Hunter, Dundas	1 "	8	"	
			DISTRICT OF WINDSOR—				
Feb. 19	Milk	54725	D. A. Brown, Strathroy	3 bots.	Nil.		Jas. Brown
" 17	"	54714	A. W. Huntley, Ingersoll	1 qt.	"	Vendor	
" 17	"	54715	F. A. Foster, Ingersoll	1 "	"	"	
" 18	"	54717	A. Devenny, St. Marys	3 bots.	"		
" 18	"	54718	J. Rutig, St. Mary's	3 "	5		Walter Stewart.
" 18	"	54720	St. Mary's Creamery, St. Mary's.	3 "	Nil.		Unknown
" 19	"	54726	J. Heardman, Strathroy	3 "	"		
			DISTRICT OF MANITOBA—				
Feb. 11	Milk	53191	A. Goodchild, St. James	1 qt.	10	Vendor	
" 11	"	53192	F. C. Fraser, St. James	1 "	Nil.	"	
" 11	"	53193	T. Edwards, St. James	1 "	10	"	
" 11	"	53194	Crescent Creamery Co., Ltd., Winnipeg.	1 "	10	Vendors	
" 12	"	53195	N. D. Tatton, Transcona	1 "	10	Vendor	
" 12	"	53196	M. Gorewich, Transcona	1 "	10	"	
" 15	"	53197	S. Benson, Selkirk	1 "	10	"	

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MILK.

Inspector's Report Is not an expression of opinion.	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. Gr.	Total Solids.	Fat.	Non-fat Solids.		
H. J. DAGER, ACTING INSPECTOR.						
		p. c.	p. c.	p. c.		
....	1·035	12·46	3 59	8·87	66814	Genuine.
.....	1·034	12·55	3·50	9·05	66815	"
... .	1·035	11·20	2·47	8·73	66816	Fat too low
.....	1·035	11·84	2·84	9·00	66817	" "
....	1·033	14·19	5·21	8·98	66818	Genuine.
....	1·037	12·81	3·99	8·82	66819	"
... .	1·032	11·10	2·86	8·25	66820	Fat too low.
....	1·032	11·04	3·18	7 86	66821	Non-fat solids low. Doubtful.
....	1·037	12·37	3·37	9·00	66822	Genuine.
....	1 035	12·26	3·31	8·95	66823	"
JNO. TALBOT, INSPECTOR.						
....	1·033	11·97	3·22	8·76	54725	Genuine.
....	1·034	12·75	3·73	9·02	54714	"
....	1·036	12·42	3·46	8·96	54715	"
....	1·034	11·85	2·65	9·20	54717	Fat too low.
.. ..	1·034	12·62	3·62	9·00	54718	Genuine.
.. ..	1·034	12·42	3·26	9·16	54720	"
.. ..	1·033	12·60	3·67	8·93	54726	"
A. C. LARIVIERE, INSPECTOR.						
. . . .	1·033	13·23	4·18	9·05	53191	Genuine.
.....	1·027	10·70	3·20	7·51	53192	Non-fat solids low.
. ...	1·036	12·85	3·45	9·40	53193	Genuine.
. . . . .	1·032	12·40	3·45	8·95	53194	
. . . . .	1·032	14·46	5·22	9·24	53195	
. . . . .	1·030	11·53	3·61	7·92	53196	Non-fat solids low. Fat
. . . . .	1·039	12·24	3·40	8·84	53197	Genuine.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF MANITOBA—				
1915.							
Feb. 15	Milk	53198	Jacob Vopnord, Selkirk	1 qt.	10	Vendor	
" 23	"	53199	Allen Bros., Virden	1 "		Vendors	
" 23	"	53200	J. Beaton, Virden	1 "		Vendor	
			DISTRICT OF SASKATCHEWAN—				
Jan. 27	Milk	66306	S. K. Browning, Wolseley	1 qt.	10	Vendor	
" 27	"	66314	S. J. Briston, Grenfell	1 "	10		U. Moerricht Bros., Grenfell
" 27	"	66317	Phillip Temple, Grenfell	1 "	10	Vendor	
" 29	"	66325	David Hart, Qu'Appelle	1 "	10	"	
" 29	"	66326	R. E. Middleton, Qu'Appelle.	1 "	10	"	
Feb. 2	"	66340	F. Myers, Rouleau	3 pts.	10	"	
" 2	"	66341	C. A. Stewart, Rouleau	3 "	10	"	
" 3	"	66343	George Davidson, Weyburn	3 "	10	"	
" 3	"	66344	Lowes Bros., Weyburn	3 "	10	Frank Wanamaker, Weyburn	
" 3	"	66345	A. Burnett, Weyburn	3 "	10	Vendor	
			DISTRICT OF ALBERTA—				
Mar. 9	Milk	52065	O. E. Lapp, Didsbury	1 qt.	10	Vendor	
" 10	"	52066	Jos. Cousins, Innisfail	1 "	10	"	
" 10	"	52067	E. H. Dennis, Innisfail	1 "	10	"	
" 11	"	52068	Hepworth & Trimble, Red Deer.	1 "	Nil.	"	
" 11	"	52069	Red Deer Creamery, Red Deer.	1 "	10	W. R. Parkins, Red Deer.	
" 12	"	52070	McCormick & Waddell Bros. Lacombe.	1 "	10	Vendors	
" 13	"	52071	Peter Iverson, Ponoka	1 "	10	Vendor	
" 16	"	52072	Meadowbrook Dairy, Leduc.	1 "	10	Vendors	
" 16	"	52073	W. T. Robinson, Leduc	1 "	10	Vendor	
" 16	"	52074	John B. Schneifer, Wetaskiwin.	1 "	10	"	

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MILK.

Inspector's Report. Is not an expression of opinion.)	Results of Analysis. Sp. Gr.	Total Solids.	Fat.	Non-fat Solids.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.						
		p. c.	p. c.	p. c.		
.. ..	1·033	12·15	3·25	8·90	53198	Genuine.
....	1·036	12·21	2·68	9·53	53199	Fat too low.
... .	1·036	12·49	3·46	9·03	53200	Genuine.
L. H. HALL, INSPECTOR.						
....	1·034	13·66	4·24	9·42	66306	Genuine.
.. ..	1·034	11·96	3·38	8·58	66314	,,
... .	1·036	14·59	5·19	9·40	66317	,,
....	1·036	13·79	4·60	9·19	66325	,,
....	1·034	12·28	3·65	8·63	66326	,,
....	1·036	15·07	5·04	10·03	66340	,,
....	1·031	10·98	2·53	8·45	69341	Fat too low.
....	1·029	13·24	4·93	8·31	66343	Genuine.
....	1·033	13·74	4·23	9·51	66344	,,
.. ..	1·033	12·54	3·39	9·15	66345	,,
A. W. R. MARKLEY, INSPECTOR.						
.. ..	1·035	12·17	2·77	9·40	52065	Fat too low.
... ...	1·033	12·01	3·28	8·73	52066	Genuine.
....	1·033	12·96	3·75	9·21	52067	,,
. ...	1·032	12·98	4·18	8·80	52068	,,
... .	1·031	11·90	3·50	8·40	52069	,,
... ...	1·030	13·37	5·25	8·62	52070	,,
... .	1·034	13·69	4·23	9·46	52071	,,
... ...	1·034	13·75	4·16	9·59	52072	,,
... ...	1·032	12·62	3·77	8·85	52073	,,
....	1·029	11·33	3·26	8·07	52074	Non fat solids Low Pass

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF ROCKY MOUNTAINS—				
1915.							
Feb. 6	Milk.	61752	H. Carlson, Revelstoke, B.C.	1 qt.	10	Vendor	
" 6	"	61753	Swan Carlson, Revelstoke, B.C.	1 "	10	"	
" 6	"	61754	W. C. Calder, Revelstoke, B.C.	1 "	10	"	
" 6	"	61755	J. McIntyre & Son, Revelstoke, B.C.	1 "	10	"	
" 10	"	61764	W. Holliday, Salmon Arm, B.C.	1 "	10	"	
" 10	"	61765	P. Owens, Salmon Arm, B.C.	1 "	10	"	
" 16	"	61792	H. J. Jones, Rossland, B.C.	1 "	10	"	
Mar. 16	"	61793	T. Nimsich, Rossland, B.C.	1 "	10	"	
" 16	"	61794	W. Hayden, Rossland, B.C.	1 "	10	"	
" 16	"	61795	J. Stone, Rossland, B.C.	1 "	10	"	
			DISTRICT OF VANCOUVER—				
Feb. 3	Milk.	55198	R. H. Willcock, Ladner, B.C.	1 qt.	10	Alex. Davie, Ladner, B.C.	
" 4	"	55199	J. M. Steves, Steveston, B.C.	1 "	10	Vendor	
" 8	"	55200	Ben Jones, Eburne, B.C.	1 "	10	"	
" 10	"	55201	Chilliwack Creamery, Chilliwack, B.C.	1 "	10	Vendors	
" 10	"	55202	Chas. Hawthorne, Chilliwack, B.C.	1 "	10	Vendor	
" 10	"	55203	Chas. Robinson, Mission, B.C.	1 "	10	"	
" 10	"	55204	H. Windebank, Mission, B.C.	1 "	10	"	
" 12	"	55205	Port Coquitlam Dairy Co. Port Coquitlam, B.C.	1 "	10	Minnekahda Ranch, Port Coquitlam, B.C.	
" 12	"	55206	North Vancouver Dairy, North Vancouver, B.C.	1 "	10	Chilliwack Creamery, Chilliwack, B.C.	
" 13	"	55207	Hygienic Dairy, North Vancouver, B.C.	1 "	10	Edenbank Creamery, Sardis, B.C.	

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MILK.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.				No. of Sample.	Remarks and Opinions of the Chief Analyst.
	Sp. Gr.	Total solids.	Fat.	Non-Fat Solids.		
THOS. PARKER, INSPECTOR.						
		p. c.	p. c.	p. c.		
. ...	1·037	13·42	4·60	8·82	61752	Genuine.
. . ..	1·027	13·71	4·43	9·28	61753	"
... .	1·037	12·37	3·20	9·17	61754	"
. .. .	1·033	12·07	3·61	8·46	61755	"
....	1·036	12·65	3·63	9·02	61764	"
.. ..	1·034	12·13	3·43	8·70	61765	"
.. ..	1·030	12·10	3·79	8·31	61792	"
....	1·034	13·09	3·97	9·12	61793	"
..... .	1·032	12·98	4·01	8·97	61794	"
....	1·032	12·11	3·39	8·72	61795	"
J. .E MORGAN, INSPECTOR.						
Sample taken from small quantity remaining after delivery.	1·032	12·07	3·58	8·49	55198	Genuine.
Sample taken at the ranch. Milk not filtered.	1·033	14·63	5·26	9·37	55199	"
....	1·033	12·41	3·47	8·94	55200	"
. . ..	1·024	14·21	5·68	8·53	55201	"
... .	1·030	11·83	3·29	8·54	55202	"
....	1·031	12·64	3·84	8·80	55203	"
... .	1·034	13·36	4·31	9·25	55204	"
. ...	1·032	11·69	3·07	8·62	55205	Fat slightly low. Pass.
.. . . . .	1·032	12·65	3·57	9·08	55206	Genuine.
... ...	1·034	12·66	3·63	9·03	55207	"

APPENDIX B.

BULLETIN No. 311—SHORTS OR MIDDLINGS.

OTTAWA, April 29, 1915.

J. U. VINCENT, ESQ.,
Deputy Minister Inland Revenue.

SIR,—I have the honour to hand you a report upon one hundred and eighty-nine (189) samples purchased by our inspectors as Shorts or Middlings.

This valuable feed has been made the subject of several reports since 1906 (see Bulletin 116, 156, 191, 231, 254); and it would appear that a considerable variation in character is found in the article sold under the names given.

The late Chief Analyst in a report dated March 16, 1906, advised legislation to define Feeding Stuffs (See Bull. No. 116) along the lines of an Act passed by Massachusetts in 1903; and our existent Commercial Feeding Stuffs Act became law in 1909. The extended frauds recognized in the manufacture and sale of Cattle feeds, has caused similar legislation to be enacted by most countries and this legislation, like our own, generally recognizes two classes of Feeds. *First*, those which, on account of their origin in nature or in manufacture, have a more or less constant composition and can be defined by fixing limiting values as provided by section 26 of the Adulteration Act. This class has been generally held to include Bran, Shorts, Middlings and so called Chop Feeds. *Second*, those which are manufactured according to a formula devised by the manufacturer, and usually proprietary. This class of feeds has, of course, extremely variable character; and the purchaser is entirely at the mercy of the manufacturers so far as concerns the value he gets for his money. Our Act requires that such feeds be sold only under a registration number, granted by the Department of Inland Revenue; and under a guarantee of minimum content in proteids and fat, and of maximum content in fibre. They are known, on the market as Registered Stock Feeds, in contradistinction to the first class, which may be sold without registration.

The limiting values fixed by Order in Council (see G. 932 and G. 968) for Shorts or Middlings, were determined by analysis of a very large number of samples purchased under these names. Details will be found in Bulletins No. 116, 156, 191 and 231 and the conclusion was reached that Shorts and Middlings must be regarded as practically the same thing, and that the minimum value for an article sold as Shorts or Middlings should be as follows:

Protein	15 per cent.
Fat	4 per cent.
Fibre	8 per cent (maximum)

That these values are reasonable and just, is indicated by the results of inspection. Thus:—

Bulletin.	Year.	Number of Samples.	Mean Protein.	Mean Fat.	Mean Fibre.
116	1906	9	16·12	3·87	8·34
156	1908	36	16·37	4·00	7·75
191	1909	258	15·25	4·04	5·63
231	1912	126	16·09	4·57	5·83
254	1913	140	15·87	4·38	5·30
Total		569	15·67	4·90	5·77

There is, however, an article on the market which many of our inspectors have been supplied with under the name of *Shorts,* or *Special Shorts,* or *Choice Shorts.* This article appears to be regarded as superior to shorts, as ordinarily understood, its superiority consisting apparently in its whiter colour, due to more complete removal of the bran, or chaff, of the grain. It is really a low grade flour; and while it contains less fibre than ordinary shorts, it usually shows a lower fat value. I have drawn attention to this article in Bulletins 231 and 254, and have suggested the advisability of recognizing it as distinct from Shorts or Middlings, and calling it *Feed Flour,* a name which seems to properly describe it. The protein value of this article is in many cases quite as high as that of Shorts or Middlings, but its fat value, is usually distinctly lower, owing to more complete removal of the germ of the wheat.

In order clearly to show the difference betwen Feed Flour and Shorts (or Middlings) proper, I may cite the following example:—

	Proteids.	Fat.	Fibre.
From Bulletin 231.			
36084	11·20	2·16	1·5
36956	12·73	1·55	0·7
43271	12·51	2·08	0·8
43281	13·26	2·32	1·3
48512	14·61	4·64	1·5
47413	15·11	2·66	1·9
47414	13·60	3·16	1·8
23866	15·29	3·40	1·8
48415	14·83	3·32	1·4
48185	11·42	1·99	0·9
38186	15·79	3·08	1·8
38188	14·13	2·82	2·6
38189	12·03	1·81	0·5
47611	14·61	2·37	1·1
47618	13·04	1·98	0·8
47621	13·71	2·28	1·0
Means	13·61	2·60	1·4

	Proteids.	Fat.	Fibre.
From Bulletin 254.			
39160	15·71	3·50	1·3
50947	14·00	2·54	2.3
49676	13·78	2·04	1·4
Means	14·49	2·69	1·6
From present report.			
63526	16·55	4·60	1·3
61593	16·75	3·34	0·8
52047	13·25	2·74	0·9
55126	16·85	3·06	0·7
55127	17·65	3·42	1·8
55130	18·20	2·99	0·7
55131	16·60	3·04	1·7
55135	15·60	3·96	0·9
62033	17·00	3·04	0·9
Means	16·49	3·35	1·1

As already pointed out, the most noteworthy deviation from the standard for Shorts (Middlings) is the very low fibre; but this is accompanied by a lower percentage of fat, and in some cases by a lower protein value. It appears to me that this article should be placed on the market under a distinctive name; in which case it will be necessary to define it independently of shorts (middlings) under which term it apparently finds sale at present. The matter will be considered by your Advisory Board; and in the meantime I would suggest that the following examples of the article which appear in the present collection, be not dealt with as adulterated shorts or middlings, although the fat percentage is below the standard demanded. The protein content meets the requirements of 15 per cent (except in one sample) and as already explained, I have reason to believe that all samples referred to were offered in good faith, as believed to be superior grades of shorts or middlings. The samples in question are Nos. 61593, 52047, 55126, 55127, 55130, 55131, and 62033.

The following summarizes the results of this inspection:

Genuine (as shorts or middlings)	170 samples.
Passed, as being Feed Flours, etc.	12 samples.
Genuine as to feed value, but containing noxious weed seeds	3 samples.
Below standard value	4 samples.
Total	189 samples.

I would respectfully advise publishing this report as Bulletin No. 311.

I have the honour to be, sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1914.							
Dec. 30	Middlings..	54241	I. B. Shaffner & Co. Ltd., Halifax, N. S.	2 lbs..	Nil.	Ogilvie M. Co., Montreal.	Mfrs....
" 30	" ..	54242	" "	2 " ..	"	St. Lawrence M. Co., Montreal.	"
" 31	" ..	54243	F. A. Shaw, Halifax, N. S..	2 " ..	"	Campbell M. Co., Toronto.	I. B. Shaffner Co., Halifax.
" 31	" ..	54244	G. A. Redmund & Co., Halifax, N. S.	2 " ..	"	T. H. Taylor, Ltd. Chatham, Ont.	Mfrs.....
1915.							
Jan. 11	" ..	54245	Wentzell's Ltd., Halifax, N. S.	2 " ..	Nil.	Lake of the Woods M. Co., Brantford, Ont.	"
" 11	" ..	54246	A. & W. Smith & Co., Halifax, N. S.	2 " ..	"	Quaker Oats Co., Peterboro, Ont.	"
" 11	" ..	54247	" "	2 " ..	"	Maple Leaf M. Co., Canada.	"
" 11	" ..	54248	J. D. Stewart, Halifax, N.S.	2 " ..	4	McLeod M. Co., Stratford, Ont.	Hunt & Nelson, Halifax, N. S.
" 14	" ..	54249	Cross & De Wolfe, Kentville, N. S.	2 " ..	Nil.	Hunt Bros., London, Ont.	Mfrs.....
" 15	" ..	54250	Wentworth Stores, Windsor, N. S.	2 " ..	5	St. Lawrence M. Co., Montreal.	"
DISTRICT OF PRINCE EDWARD ISLAND—							
1914.							
Oct. 24	Shorts.....	60161	Beer & Goff, Charlottetown, P. E. I.	3 lbs..	6	Ogilvies, Montreal.	
" 28	Middlings..	60162	A. Horne & Co., Charlottetown, P. E. I.	3 " ..	....	Canada M. Co., Ltd., Lake of the Woods.	
" 28	" .	60163	Auld Bros., Charlottetown. P. E. I.	3 " .	....	Woodburn M. Co., Glencoe, Ont.	
" 28	" ..	60164	" "	3 " ..	....	The Maple Leaf M. Co. Toronto.	
DISTRICT OF NEW BRUNSWICK—							
Nov. 11	Middlings..	59626	W. J. Alexander. St. John, N.B.	3 lbs.	15	Maple Leaf M. Co., Ltd., Ont.	
" 11	" ..	59627	C. H. Perters Sons, St. John, N.B.	3 "	15	Campbell F. M. Co., Toronto & Peterboro.	
" 13	" ..	59628	P. Nase & Son, St. John, N.B.	3 "	15	Lake of the Woods M. Co., Ltd., Ont.	

SESSIONAL PAPER No. 14

MIDDLINGS (SHORTS.)

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.				No. of Sample.	Remarks and opinion of the Chief Analyst.
	Protein.	Fat.	Fibre.	Vital Weed Seeds per ounce.		
R. J. WAUGH, INSPECTOR.						
	p. c.	p. c.	p. c.			
.....	15·30	3·72	6 65	47 Lambs' quarters, 7 Pepper grass.	54241	Genuine.
.....	16·20	4·74	6·75	None.....	54242	"
"Bull Rush" Brand.....	19·00	4·40	8·75	"	54243	"
.....	18·45	4·41	7·75	"	54244	"
.....	17·35	4·36	8 70	"	54245	"
.....	19·65	4·84	8·55	"	54246	"
.....	17·30	4·48	8·65	"	54247	"
Sold as Shorts.....	15 70	4 10	10·60	1 Lambs' quarter, 3 chess	54248	Some excess fibre. Pass.
.....	16·40	4·16	10·30	7 Lambs' quarters.	54249	"
.....	17·70	4·46	7·80	None	54250	Genuine
WM. A. WEEKS, INSPECTOR.						
.....	16 60	4·16	8 15	60 Lambs' quarters, 1 Cinquefoil, 1 Tumbling Mustard, 1 evening primrose.	60161	Genuine
.....	19 15	5 68	7 55	None	60162	"
.....	15 25	4 00	8 45	"	60163	"
.....	17 05	4 42	9 05	"	60164	"
JNO. C. FERGUSON, INSPECTOR						
Maple Leaf Brand. Registered.	18 90	5 20	7 0	None	58[illegible]	Genuine
Wheat, "Bull Rush" Brand.	17 05	5 42	8 40	"	58[illegible]	"
Wheat	19 85	5 72	7 25	"	58[illegible]	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NEW BRUNSWICK—							
1914.							
Nov. 19	Middlings..	59629	B. Beveridge, Andover, N.B.	3 lbs	15	Empire F.M. Ltd., St. Thomas, Ont.	.....
" 20	" ..	59630	Geo. T. Whelpley Estate, Fredericton, N.B.	3 "	15	Western Canada F. M.,St.John,N.B.	....
" 20	" ..	59631	Currie Bros., Fredericton, N.B.	3 "	25	Robin Hood M., Ltd.,Moose Jaw.	.....
" 26	" ..	59632	Hill Bros., St. Stephen,N.B.	3 "	15	Dominion F. M., Ltd., Montréal.	.....
Dec. 8	" ..	59633	Sussex Mercantile Co., Ltd., Sussex, N.B.	3 "	15	Ogilvie M. Co., Montreal, P. Q.	.....
" 9	" ..	59634	The Fawcett M. Co., Ltd., Moncton, N.B.	3 "	15	Maple Leaf M.Co., Ltd., Toronto.	.....
" 10	" ..	59635	J. B. Snowball Co., Ltd., Chatham, N.B.	3 "	15	Empire F. M., Blenheim, Ont.	.....
DISTRICT OF QUEBEC CITY—							
Nov. 6	Middlings..	60729	J. B. Renaud & Cie., Quebec.	3 lbs.	....	St. Lawrence F.M. Co.	Mfrs.....
" 6	Shorts.....	60730	" " ..	3 "	....	Ogilvie F. M. Co.	" .....
" 6	Middlings..	60731	G. Tanguay, Quebec.....	3 "	...	Dominion F. M. Co.	" .....
" 6	Shorts. ...	60732	" "	3 "	....	Ogilvie F. M. Co..	" ....
" 6	"	60733	W. Carrier & Fils, Quebec..	3 "	....	" ..	" ....
" 6	Middlings. .	60734	F. Kirouack & fils, Quebec.	3 "	....	Western Canada.. F. M.	Manufacturer...
" 6	Shorts.....	60735	" " ..	3 "	....	Ogilvie F. M. Co..	.... " ...
" 9	Middlings. .	60736	P. T. Busiere, Quebec	3 "	....	Lac des Bois.....	..... " .....
" 9	Shorts	60737	" "	3 "	....	" "	..... " .....
" 9	"	60738	F. E. Drolet, Quebec	3 "	....	Ogilvie F. M. Co.	..... " .....
DISTRICT OF QUEBEC PROVINCE—							
Nov. 7	Middlings..	56418	Selvio Levasseur.....	2 lbs.	4	....	Geo. Tanguay, Quebec.
" 9	" ..	56422	D. E. Bernier.....	2 "	5	Canadian C. M., Toronto.	.. ..
" 2	" ..	203	Damien Hetu, St. Agathe des Monts.	3 "	9	Ogilvie's	.....
" 2	" ..	205	J. B. Belisle, St. Agathe des Monts.	3 "	5	St. Lawrence.	... .
" 2	" ..	206	Noe Forget, St. Agathe des Monts.	3 "	9	Lake of the Woods	....

SESSIONAL PAPER No. 14

MIDDLINGS (SHORTS.)

Inspector's Report. (Is not an Expression of opinion.)	Results of Analysis. Protein.	Fat.	Fibre.	Vital Weed Seeds per Ounce.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.						
	p. c.	p. c.	p. c.			
Wheat, "Germ Feed". ...	17·75	4·26	6·25	None	59629	Genuine.
Wheat. Reg. No. 64. Protein = 18·36. Fat = 6·04. Fibre = 7·51.	18·05	5·74	6·70	"	59630	"
Guaranteed analysis. Crude protein = 17·25. Crude Fat = 6·50. Fibre = 5·20.	20·00	6·22	6·30	"	59631	"
Wheat.....	16·90	5·08	8·60	"	59632	"
Ogilvie's Wheat...	18·60	4·68	8·00	"	59633	"
Wheat. Reg. M.L.M.	17·90	3·84	7·15	"	59634	"
Wheat.....	16·35	4·80	7·15	4 False Flax..	59635	Genuine. Excess vital weed seeds.

F. X. W. E. BELAND, INSPECTOR.

....	17·85	4·70	8·20	None.	60729	Genuine.
....	16·75	4·04	7·30	3 lambs quarters, 1 chess 1 peppergrass.	60730	"
....	17·30	5·22	7·20	None	60731	"
....	18·85	4·82	7·65	"	60732	"
....	18·30	4·90	6·85	10 lambs quarters.	60733	"
....	17·20	5·38	6·75	None	60734	"
....	16·75	4·48	8·15	70 Lambs' Quarters, 3 Black Bindweed.	60735	"
....	18·95	4·04	6·75	None	60736	"
....	18·30	4·58	6·90	"	60737	"
....	16·00	4·44	10·35	"	60738	Some excess fibre, [illegible]

A. PELLETIER, N. CADIEUX, J. E. AUDET AND T. GENDREAU, TEMP. INSPECTORS

....	15·95	4·76	10·00	None	56418	Genuine.
....	17·85	5·90	7·05	"	56422	"
....	17·40	4·48	8·00	"	203	"
....	18·05	5·82	7·70	"	205	"
....	19·50	4·08	4·10	"	206	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF QUEBEC PROVINCE—				
1914.							
Nov. 11	Middlings..	217	C. Taillon, Ste. Jerome	3 lb..	15	Ogilvie's.....	....
" 16	" ..	223	Jerome Filion, Ste. Jerome.	3 " ..	5	Macdonald & Robb	.. ..
Dec. 20	" ..	240	J. B. Leferne, Ste. Therese.	3 " ..	5	St. Lawrence.....	....
" 20	" ..	242	Waddell & Frere, Ste. Therese.	3 " .	5	"	.....
" 20	" .	244	D. Cloutier, Ste. Therese...	3 " ..	6	"	....
" 20	" .	248	A. Delormes, Ste. Thérèse..	3 " ..	5	Ogilvie's	....
Nov. 12	" ..	3714	Jos. Turgeon, Ste. Isadore..	3 " ..	5	Can. C. and F. M., Toronto.	....
Dec. 3	" .	2876	A. Cloutier, St. Odilon.....	2 " ..	5	....	Lergeon & Gourdeau, Quebec.
" 4	Shorts.....	2884	L. J. Audet, St. Edward...	2 " ..	5	. . ..	Dorchester Lumber.
Nov. 25	Middlings..	2734	Arcadius Caron, Montmagny	3 " ..	6	....	Maple Leaf Ltd., Canada.
			DISTRICT OF THREE RIVERS—				
Oct. 24	Shorts.....	2625	E. Barette, Joliette.....	3 lb..	5	St. Lawrence F. M. Co , Montreal.	.. ..
" 26	"	2626	Louis Pauze, L'Assomption	2 " ..	10	Ogilvie F. M. Co., Montreal.	....
" 28	"	2627	Archibald Duff, Charlemagne.	2 " ..	5	Lake of the Woods Co., Montreal.	....
" 28	"	2628	Edm. Robillard, St. Paul L'ermite.	2 " ..	6	Ogilvie F. M. Co., Montreal.	....
" 31	Middlings..	2695	B. Coutu, Berthierville.....	2 " ..	6	St. Lawrence F. M., Montreal.	.....
" 31	Shorts... ..	2696	" "	2 " ..	6	" " ..	..... / ...
Nov. 2	"	3904	G. H. Read, St. Felix de Valois.	2 " ..	5	Ogilvie F. M., Montreal.	....
" 3	"	3905	Louis Enos, St. Felix de Valois.	2 " ..	6	St. Lawrence F. M., Montreal.	....
" 3	"	3906	Wilfred Brissette, St. Felix de Valois.	2 " .	6	Can. Western Fl. Co., Montreal.	.....
" 5	"	3910	Frs. Rivest, Joliette.....	2 " ..	6	Vendor	....
			DISTRICT OF MONTREAL—				
1915.							
Jan. 8	Shorts.....	62611	C. Campbell, 748 Charlevoix, Montreal.	2 lbs.	....	....	W. Lamarre & Co., Montreal.
" 9	"	62612	Hall Bros. Rgd., 270 Moreau St.	2 "	...	.. ..	Geo. Cardinal, Montreal.

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MIDDLINGS (SHORTS).

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Protein.	Fat.	Fibre.	Vital Weed Seeds per Ounce.		
Concluded.						
	p. c.	p. c.	p. c.			
	16·35	3·92	7·90	2 Lambs' Quarters, 1 Peppergrass.	217	Genuine.
	16·85	4·24	5·25	None	223	"
	17·25	4·26	6·90	"	240	"
	18·35	4·68	8·40	"	242	"
	17·95	4·78	7·90	"	244	"
	17·65	4·34	5·95	"	248	"
	16·50	4·76	8·40	"	3714	"
Maple Leaf	16·25	4·00	7·20	"	2876	"
Ogilvie's	19·10	4·46	6·75	13 Lambs' Quarters	2884	"
	18·10	4·32	7·60	None	2734	"
DR. V. P. LAVALLEE, INSPECTOR.						
	16·50	4·58	8·30	None	2625	Genuine.
	19·05	4·28	6·60	2 Lambs' Quarters, 1 Black Bindweed, 1 Cow Cockle, 1 Peppergrass.	2626	"
	19·15	4·88	7·25	None	2627	"
	18·00	4·00	6·90	10 Lambs' Quarters, 1 Peppergrass.	2628	"
	19·05	4·52	6·80	None	2695	"
	18·95	5·26	8·85	"	2696	"
	16·25	4·51	9·20	30 Lambs' Quarters, 3 Black Binweed.	3904	"
	18·15	5·04	8·95	None	3905	"
	16·65	5·28	7·00	"	3906	"
	16·70	4·76	7·80	1 Stickweed	3910	"
D. J. KEARNEY, INSPECTOR.						
	15·95	4·34	7·10	None	6261	Genuine.
	18·15	4·52	6·30		6262	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF MONTREAL—				
1915.							
Jan. 9	Shorts.....	62613	J. A. Roberge, 259 Moreau St.	2 lbs.	....	....	E. A. Barry, Montreal.
" 9	"	62614	Jos. Larcheveave, 578 Ontario St., Montreal.	2 "	....	....	Unknown.....
" 11	Middlings ..	62615	B. Vaillencourt, 1195 St. Lawrence Boul., Montreal	2 "	....	West Canada F. M. Co.	....
" 11	Shorts.....	62616	St. Louis Grain & Feed Co., 2105 St. Lawrence Boul., Montreal.	2 "	....	....	Unknown..... .
" 11	"	62617	F. Gobeille, Cor. Maguire & Sanguinet.	2 "	....	Dom. F. Mills....	.....
" 11	Middlings ..	62618	" " "	... .	....	Robin Hood, F. M	....
" 12	" ..	62619	O. Charbonneau, Pointe & Trembles.	2 "	5	....	Unknown.....
" 12	" ..	62620	E. Benoit & Fils, 181 St. Paul St., Montreal.	2 "	. .	Ogilvie F. M. ...	....
			DISTRICT OF VALLEYFIELD AND EASTERN TOWNSHIPS—				
1914.							
Nov. 9	Middlings ..	63021	M. K. M'Kenzie, Richmond	2 lbs.	10	M'Leod M. Co., Stratford, Ont.	.. ..
" 9	Shorts	63022	" " "	2 "	10	" "	.....
" 9	"	63023	" " "	2 "	10	Ogilvie F. M. Co..	.....
" 9	Middlings ..	63024	F. H. McKee. "	2 "	5	" " ..	....
" 9	" ..	63025	" " "	2 "	5	Maple Leaf M. Co.	....
" 10	" ..	63026	George McCracken, Danville.	2 "	5	Ogilvie F. M. Co., Ltd.	....
" 10	Shorts.....	63027	" "	2 "	5	" "	.....
" 10	"	63028	J. Audet, Coaticook.....	3 "	10	St. Lawrence F.M. Co., Ltd.	....
" 10	Middlings .	63029	" "	3 "	10	Ogilvie F. M. Co.. Ltd.	....
" 10	" ..	63030	Lovell, Bros., Coaticook....	3 "	10	Lake of the Woods M. Co., Ltd.	..... .
" 17	Shorts.....	62841	Lahaie & Sons, Buckingham	3 "	10	E. A. Barry Masson.	.....
" 17	"	62842	A. Cummings, Buckingham.	3 "	....	Lake of the Woods M. Co.	.....
" 17	Middlings ..	62843	" "	3 "	....	" "	....
Dec. 9	Shorts.....	62844	D. Walker, Huntingdon....	3 "	5	West. Canada F. M. Co., Ltd.	. ...
" 9	"	62845	Pringle & Stark, Huntingdon.	3 "	...	Lake of the Woods M. Co., Ltd.	....

SESSIONAL PAPER No. 14

MIDDLINGS (SHORTS).

Inspector's Report, (Is not an expression of opinion.	Results of Analysis. Protein.	Fat.	Fibre.	Vital Weed Seeds per Ounce.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.						
	p. c.	p. c.	p. c.			
...	18·65	5·16	6·15	9 Lambs Quarters, 1 American Dragonhead, 1 Pennycress.	62613	Genuine.
...	19·25	4·92	9·60	None	62614	"
...	17·15	4·50	6·70	12 Lambs Quarters ...	62615	"
...	16·70	4·10	10·10	None	62616	"
...	18·95	6·34	6·95	"	62617	"
...	17·80	5·26	6·50	"	62618	"
...	19·05	5·48	6·75	"	62619	"
...	19·35	5·18	8·15	"	62620	"
J. J. COSTIGAN, ACTING INSPECTOR.						
...	15·65	4·10	6·85	None	63021	Genuine.
...	16·70	4·18	8·80	"	63022	"
...	17·10	4·82	7·60	107 Lambs Quarters, 1 Catchfly and 1 Pepper grass.	63023	"
...	17·70	4·20	6·30	None	63024	"
...	16·30	5·44	8·90	"	63025	"
...	17·10	4·26	7·75	"	63026	"
...	17·60	4·66	7·60	40 Lambs' Quarters, 1 Western False Flax	63027	"
...	16·40	5·38	9·80	None	63028	"
...	16·55	4·48	6·90	42 Lambs' Quarters, 1 Catchfly	63029	"
...	17·65	4·30	5·40	None	63030	"
...	19·50	5·58	8·15	"	62841	"
...	18·60	5·28	8·10	"	62842	"
...	16·70	4·04	3·95	"	62843	"
...	19·55	5·60	7·65	"	62844	"
...	18·05	5·48	8·20	...	62845	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Addres of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF OTTAWA—							
1914.							
Oct. 23	Shorts.....	63526	The Foster Bennett Co., Ltd., River Desert.	3 lb..	5	Alex. Maclaren, Wakefield.	.....
" 24	Middlings..	63527	S. Kerr, Kemptville	3 " .	10	Lake of the Woods M. Co., Keewatin.	. . . .
Nov. 3	Middlings, choice.	63528	The Western Canada F. M. Co., Ltd., Ottawa.	3 " .	Nil.	Vendors.....	.....
" 3	Shorts.....	63529	" "	3 " .	"	"	....
" 3	Middlings.	63530	The Maple Leaf M. Co., Ottawa.	3 " .	"	"	....
3	" ..	63531	The Maple Leaf M. Co., Ottawa.	3 " .	"	"	....
3	Shorts	63532	The Renfrew F. M. Co., Ltd., Ottawa.	3 " .	"	"	.....
4	Middlings..	63533	Lake of the Woods M. Co., Ottawa.	3 " .	"	"	....
" 4	" ..	63534	The Ogilvie F. M. Co., Ltd., Ottawa.	3 " .	"	"	.....
" 4	Shorts	63535	E. Larose, 259 Cumberland St., Ottawa.	3 " .	"	Wm. Scott & Co., Deschenes, P.Q.	... .
DISTRICT OF KINGSTON—							
Oct. 29	Shorts	61590	J. A. McFarlane, Kingston.	3 lb..	5	West Canada, Ltd., Toronto.	....
29	"	61591	" "	3 " .	5	Maple Leaf Co., Ltd., Toronto.	.. ..
"	"	61592	Kingston Milling Co., Kingston.	3 " .	5	Vendors.....	....
29	Middlings..	61593	" "	3 " .	5	"	....
" 29	Shorts.....	61594	Maple Leaf Co., Kingston..	3 " .	5	Maple Leaf Co., Toronto.	.....
" 29	Middlings..	61595	" "	3 " .	5	"	.....
" 29	Shorts.....	61596	W. F. McBroom, Kingston.	3 " .	5	Ogilvie Co., Montreal.	... .
" 29	"	61597	Geo. Gibson, Kingston.....	3 " .	5	"	....
" 29	"	61598	W. P. Peters, Kingston....	3 " .	5	Lake of the Woods Co.	....
" 29	Middlings..	61599	" "	3 " .	5	Hunt Bros., London.	....
Nov. 3	Shorts.....	61600	Hanley Netteville, Belleville.	3 " .	5	....	....

SESSIONAL PAPER No. 14

MIDDLINGS (SHORTS).

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.				No. of Sample.	Remarks and Opinion of Chief Analyst.
	Protein.	Fat.	Fibre.	Vital Weed Seeds, per ounce.		
J. A. RICKEY, INSPECTOR.						
	p. c.	p. c.	p. c.			
.....	16·55	4·60	1·30	17 Lambs' Quarters, 7 Black Bindweed, 1 Russian Pigweed, 1 Hares-ear Mustard.	63526	Genuine. Feed Flour.
.....	18·55	4·80	6·55	None.....	63527	Genuine.
.....	18·90	4·04	8·10	"	63528	"
.....	18·65	6·44	4·35	"	63529	"
Rex Brand	18·60	5·36	8·00	"	63530	"
Maple Leaf.....	18·40	5·06	8·95	"	63531	"
.....	17·90	5·36	8·00	"	63532	"
.....	18·75	4·26	5·30	"	63533	"
.....	15·20	5·12	5·50	"	63534	"
.....	14·70	5·14	12·75	32 Lambs' Quarters, 1 Cinquefoil.	63535	Excess fibre. Adulterated.
JAMES HOGAN, INSPECTOR.						
.....	17·55	5·68	6·80	None.....	61590	Genuine.
.....	17·05	4·26	9·30	"	61591	"
.....	18·60	5·18	3·15	"	61592	"
.....	16·75	3·31	0·75	"	61593	Fat is low. Pass Feed flour.
.....	17·75	4·68	9·25	.....	61594	Genuine.
.....	17·15	4·28	6·00	"	61595	"
.....	18·10	4·90	6·60	1 Lambs' Quarters, 1 Peppergrass, 1 Pennycress	61596	"
.....	17·65	4·60	7·95	None	61597	"
.....	19·20	4·88	5·80	.....	61598	"
.....	14·40	3·79	9·60	.....	61599	Nearly up to standard.
.....	10·75	2·11	11·05	.....	61600	Excess fibre and deficiency in protein and fat. Low grade bran, adulterated.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF TORONTO—				
1914.							
Nov. 17	Shorts	64568	Geo. Gibb, Collingwood	3 lb.	5	Collingwood Milling Co., Ltd.	
" 17	"	64579	Barrie Milling Co., Ltd.	3 "		Vendors	
" 18	"	64580	T. Marchand, Penetang	3 "	5	West Can. F. M. Co., Toronto.	
" 18	"	64581	George Copeland & Sons.	3 "	5	Vendors	
" 18	"	64582	W. M. Thompson, Penetang	3 "	5	Ogilvie F. M Co., Ltd., Montreal.	
" 19	"	64583	F. Rollins, Midland	3 "	5	Robin Hood M. Co., Ltd., Moosejaw.	
" 19	"	64584	Geo. Copeland & Sons, Midland.	3 "	5	Vendors	
" 20	"	64585	T. B. Cramp, Orillia.	3 "	5	Ogilvie F. M. Co., Ltd., Montreal.	
" 27	"	64586	Crampsey & Kelly 684 Queen St. East, Toronto	3 "	5	Maple Leaf M. Co., Ltd., Toronto.	
" 27	"	61587	Lake of the Woods Milling Co., Toronto.	3 "	5		
			DISTRICT OF HAMILTON—				
Nov. 2	Shorts	64517	E. Clarke, Orangeville	3 lb.	5	Lake of the Woods M. Co., Montreal	
" 2	"	64518	W. A. McClean & Co., 1,000 2nd Ave. E., Owen Sound	3 "	5	The Campbell F. M. Co., Ltd., Toronto.	
" 4	"	64519	J. U. Tyson, Wiarton	3 "	5	McLeod M. Co., Ltd., Stratford.	
" 5	"	64520	John Sandlos, Hanover	3 "	5	Maple Leaf M. Co. Ltd., Toronto.	
" 6	"	64521	Wm. Knechtal & Son, Hanover.	3 "	5	Vendors	
" 6	"	64522	Walkerton Flour Mills, Walkerton.	3 "	5	Vendors	
" 6	"	64523	C. S. Smith & McConnell, Walkerton.	3 "	5	Thos. Burrell & Sons, Pinverton.	
" 9	"	64524	A. W. Swaiie, 649 Burton St. E., Hamilton.	3 "	6	Ogilvie M. Co., Ltd., Montreal.	
" 6	"	64525	A. Dyment & Son, 342 Burton St. E., Hamilton.	3 "	5	Wood M. Co., Ltd. Hamilton.	
" 10	"	64526	Kerr Milling Co., Ltd., Dundas.	3 "	5	Vendors	
			DISTRICT OF WINDSOR—				
Nov. 4	Shorts	63953	W. B. Laurie, Tillonburg	3 lb.	Nil.	Quance Bros., Delhi	
" 4	"	63954	David Crossett, "	3 "	5	Seaforth M. Co., Seaforth.	
5	"	63965	M. Thorburn, Simcoe	3 "	10	Lake of the Woods M. Co.	

SESSIONAL PAPER No. 14

MIDDLINGS (SHORTS).

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Protein.	Fat.	Fibre.	Vital Weed Seeds. Per ounce.		
H. J. DAGER, INSPECTOR.						
	p. c.	p. c	p. c.			
...	19·35	5·32	9·00	None	64578	Genuine.
...	16·40	4·92	6·78	"	64579	"
...	18·90	5·52	7·26	"	64580	"
...	18·95	4·62	6·06	"	64581	"
...	16·75	4·10	9·24	"	64582	"
...	19·55	6·12	6·90	"	64583	"
...	18·50	3·50	6·72	"	64584	"
...	16·25	5·06	8·14	"	64585	"
...	17·00	4·46	8·48	"	64586	"
...	18·90	5·02	8·48	"	64587	"
H. J. DAGER, ACTING INSPECTOR.						
...	18·25	5·02	6·65	None	64517	Genuine.
...	18·15	4·90	7·35	"	64518	"
...	14·75	4·74	6·40	"	64519	"
...	16·80	4·58	6·60	"	64520	"
...	17·15	5·74	7·35	"	64521	"
...	15·85	5·28	6·40	"	64522	"
...	16·90	5·20	7·45	"	64523	"
...	17·15	5·02	8·00	"	64524	"
...	15·60	4·10	8·70	172 Lambs Quarters, 2 Catchfly, 1 Plantain, 1 Hedge Nettle	64525	"
...	20·35	5·80	9·24	None	64526	"
JOHN TALBOT, INSPECTOR.						
...	14·55	4·76	7·40	None	63887	Genuine.
...	15·75	4·06	8·50	"	63904	"
...	19·65	5·28	7·35	"	63905	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cost.	Manufacturer.	Furnisher.
			DISTRICT OF WINDSOR—				
1914.							
Nov. 5	Shorts	63966	E. Edmonds, Simcoe.....	3 lb..	Nil.	Tavistock M. Co., Tavistock.	.....
" 6	"	63970	E. R. White, Aylmer, Ont.	3 " ..	"	T. Taylor & Co., Chatham.	.....
" 6	"	63971	Lewis Pierce & Sons, " .	3 " ..	"	Empire M. Co., St. Thomas.	.....
" 7	"	63973	H. E. Stansell, St. Thomas.	3 " ..	5	" "	.....
" 7	"	63974	J. A. Facey, " .	3 " ..	5	Hunt Bros., London, Ont.	.. ..
" 7	"	63975	E. Slobashy, London, East.	3 " ..	5	Unknown.....	.....
" 7	"	63976	Leith & Staples, " " .	3 " ..	5	Dorter & Son, London.	... ...
			DISTRICT OF MANITOBA—				
Oct. 29	Shorts ..	61182	Ogilvie F. M. Co., Ltd., Winnipeg.	3 lbs..	....	Vendors..	....
" 29	"	61183	Western Canada F. M. Co., Ltd., St. Boniface.	3 " ..	...	"	.....
" 30	"	61184	Lake of the Woods M. Co., Ltd., Portage La Prairie.	3 " ..	....	"	..... .
Nov. 3	"	61185	Western Canada F. M. Co., Ltd., Brandon.	3 " ..	....	"	... .
" 3	"	61186	Maple Leaf M. Co., Brandon	3 " ..	....	"	....
" 4	"	61187	Leitch Bros., F. M. Ltd., Oak Lake.	3 " ..	....	"	....
" 24	"	61188	The Winkler M. Co., Winkler.	3 " ..	....	"	....
" 25	"	61189	Geo. McCulloch & Sons, Souris.	3 " ..	..	"	....
" 25	"	61190	A. M. Harvie, 651 Sargent St., Winnipeg.	3 " ..	10	Lake of the Woods M. Co., Keewatin.	.....
" 26	"	61193	Standard Hay & Feed Co., 545 Logan Ave., Winnipeg	3 " ..	....	" "	.....
			DISTRICT OF SASKATCHEWAN—				
Oct. 28	Shorts	64056	Morin & Pfieffer, Prince Albert.	2 lbs..	Nil.	Hudson Bay Mills. Prince Albert.	....
" 30	"	64070	G. H. Speer, Mighton & Co. Saskatoon.	3 " .	"	Quaker Oats Co., Saskatoon.	....
" 30	Middlings..	64072	S. A. Early & Co., Saskatoon	3 " ..	"	Robin Hood M. Co., Moosejaw.	... .
" 31	Shorts	64075	Ogilvie M. Co., Regina.	2 " ..	"	Vendors	....
" 31	"	64077	N. Sutherland, Regina.	2 " ..	10	Lake of the Woods M. Co., Keewatin.	....

SESSIONAL PAPER No. 14

MIDDLINGS (SHORTS).

Inspector's Report (Is not an expression of opinion.)	Results of Analysis.			Vital Weed Seeds per ounce.	No. of Sample.	Remarks, and Opinion of the Chief Analyst.
	Protein.	Fat.	Fibre.			
Concluded.						
	p. c.	p. c.	p. c.			
	15·85	4·52	8·30	None.	63966	Genuine.
	17·25	4·44	8·80	"	63970	"
	18·60	5·08	5·85	"	63971	"
	18·85	5·52	6·75	"	63973	"
	18·20	5·58	9·15	26 False Flax, 1 Tumbling Mustard.	63974	Genuine. Excess vital weed seeds
	17·10	5·46	7·75	None.	63975	Genuine.
	17·85	4·82	7·49	"	63976	"
A. C. LARIVIERE, INSPECTOR.						
	19·25	4·78	7·00	None.	61182	Genuine.
	18·67	5·26	7·90	"	61183	"
	18·20	4·56	7·50	"	61184	"
	19·30	5·02	6·65	"	61185	"
	18·85	4·64	8·60	"	61186	"
	18·80	4·88	8·85	"	61187	"
	17·50	3·92	8·35	"	61188	"
	19·30	4·38	8·85	"	61189	"
	18·90	4·74	8·45	"	61190	"
	19·20	4·90	8·00	"	61195	"
L. H. HALL, INSPECTOR.						
	15·80	4·44	6·42	9 Lamb's quarters, 1 Black bindweed	64[illegible]	Genuine
	18·40	4·66	7·14	35 Lamb's quarters, 1 Black bindweed.	64[illegible]	"
	19·10	4·64	6·60	None	64[illegible]	"
	17·00	4·12	9·15	[illegible]	64[illegible]	"
	18·15	4·80	6·25	[illegible]	64[illegible]	"

* Manufacturers explain the presence of weed seeds by a break down of their machinery

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF SASKATCHEWAN—							
1914.							
Nov. 2	Shorts	64081	T. W. McGregor, Mortlach.	2 lb.	10	West. Canada F. M. Co., Winnipeg	
" 2	"	64082	E. C. Bissell, Mortlach.	2 "	Nil.	Vendor	
" 3	"	64084	Ogilvie Milling Co., Pense.	3 "	"	Ogilvie M. Co., Winnipeg.	
" 4	"	64087	Lake of the Woods M. Co., Moose Jaw.	2 "	"	Lake of the Woods M. Co., Winnipeg	
" 4	Middlings	64088	Chas. H. Boyd	3 "	"	Robin Hood M. Co., Moose Jaw.	
DISTRICT OF ALBERTA—							
Nov. 19	Shorts	52044	I. E. Love, Calgary	3 lb.	5	Ogilvie, Medicine Hat.	
" 20	"	52045	Erl & Anderson, Calgary	3 "	Nil.	" "	
" 20	"	52046	Thos. Fletcher, Calgary	3 "	"	Robin Hood Mills, Ltd., Calgary.	
" 24	"	52047	Stettler Flour Mills, Stettler	3 "	"	Vendors	
" 25	"	52048	L. E. Martin, Camrose	3 "	"	Union Supply Co., Nor. Battleford.	
" 25	"	52049	P. M. Laing, Camrose	3 "	"	Robin Hood Mills, Ltd., Calgary.	
" 25	"	52050	MacEachern & McCallum, Wetaskiwin.	3 "	"	Vendors	
" 27	"	52051	Nicholson & Switzer, Lacombe.	3 "	"	Ellison M. and E. Co, Lethbridge.	
" 27	"	52052	" "	3 "	"	Robin Hood Mills, Ltd., Calgary.	
" 30	"	52053	Crown Feed and Produce Co, Calgary.	3 "	"	Lumsden M. and G. Co., Lumsden, Sask.	
DISTRICT OF ROCKY MOUNTAINS—							
Nov. 10	Middlings (Shorts.)	61714	J. R. Randall, Trail	3 lbs.	20	Robin Hood Mills, Calgary.	
" 23	Shorts	61729	Hudson's Bay Co., Kamloops.	3 "	15	Quaker Oats Co., Saskatoon.	
" 23	"	61734	R. McCall, Kamloops	3 "	15	Ogilvie M. Co., Medicine Hat.	
Dec. 1	Middlings	61737	Taylor M. & E. Co., Nelson.	3 "	15	Robin Hood Mills, Calgary.	
" 1	Shorts	61738	A. S. Horswill & Co., Nelson.	3 "	15	Ellison M. & E. Co., Lethbridge.	

SESSIONAL PAPER No. 14

MIDDLINGS (SHORTS).

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Protein.	Fat.	Fibre.	Vital Weed Seeds per Ounce.		
Concluded.						
	p. c.	p. c.	p. c.			
Reg. No. 83	18·75	5·40	9·15	None	64081	Genuine.
	19·15	3·02	3·40	"	64082	Fat, low. Pass.
	17·80	4·58	8·85	"	64084	Genuine.
	18·90	5·22	6·40	"	64087	"
	19·75	5 84	6 35	"	64088	"
A. W. R. MARKLEY, INSPECTOR.						
	20·95	5 22	7·60	4 Lambs' Quarters, 1 Tumbling Mustard.	52044	Genuine.
	20·95	4 48	7·40	7 Lambs' Quarters	52045	"
	19 10	5 00	6 50	None	52046	"
	13 25	2 74	0·85	"	52047	Protein and fat too low. Feed flour. Doubtful.
	17 75	4 28	8 80	"	52048	Genuine.
	20·65	4·46	6 10	"	52049	"
	15 80	5 12	4 50	"	52050	"
	18 00	4 16	5 55	14 Lambs' Quarters, 21 Wormseed Mustard.	52051	"
	18 80	4 20	7·05	None	52052	"
	18·70	5 44	7 65	"	52053	"
THOS. PARKER, INSPECTOR.						
	19 15	4 30	6·70	None	61724	Genuine
	18 85	5 30	5 95	20 Lambs' Quarters	61729	"
	20 40	4 28	7 65	None	61734	"
	18 60	4 68	7 20		61737	"
	20 55	4 46	8 00	"	61738	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF VANCOUVER—							
1914.							
Oct. 30	Middlings. .	55126	Brackman Ker M. Co., Ltd., Vancouver.	3 lbs..	10	Robin Hood Mills, Calgary.	
" 3	"	55127	Alberta Pacific Grain Co., Vancouver.	3 "	....	Lake of the Woods M. Co., Keewatin.	
" 3	"	55128	A. E. Burnett & Co., City Market, Vancouver.	3 "	5	" ..	
" 3	"	55129	F. T. Vernon, 255 Broadway, Vancouver.	3 "	10	" ..	
" 3	"	55130	Vancouver M. & G. Co., Ltd., Vancouver.	3 "	....	Vendors	
" 31	"	55131	McLellan, McCarter Co., Ltd., 1605 6th Ave. W., Vancouver.	3 "	10	Robin Hood Mills, Calgary.	
" 31	"	55132	" " ..	3 "	10	" ..	
Nov. 3	"	55133	Brackman Ker M. Co., Ltd., 535 Front st., New Westminster.	3 "	....	" ..	
" 3	"	55134	Grain Growers B. C. Agency, New Westminster.	3 "	...	Vendors	
" 4	"	55135	Brackman Ker M. Co., Ltd., Vancouver.	3 "	10	Magrath M. Co., Magrath, Alta.	
DISTRICT OF VICTORIA—							
Nov. 13	Shorts.....	62031	Sylvester Feed Co., 709 Yates St., Victoria.	3 lbs..	...	Ogilvie M. Co. Medicine Hat.	
" 13	"	62032	Brackman Ker, M. Co., 1420 Broad St., Victoria.	3 "	....	West. Canada F. M. Co., Brandon.	
" 13	Middlings..	62033	" "	3 "	....	Royal Standard Mills, Vancouver.	
" 13	" ..	62034	Scott & Peden, cor. Store & Cormorant St., Victoria.	3 "	7	Robin Hood Mills, Calgary.	
" 13	Shorts.. . .	62035	" "	3 "	7	Ogilvie M. Co., Winnipeg.	
" 13	"	62036	" "	3 "	7	Ellison M. & E. Co., Lethbridge.	
" 23	"	62037	S. Leiser & Co., Ltd., 527 Yates St., Victoria.	3 "	7	Vancouver M. & G. Co., Ltd., Vancouver.	
" 24	"	62038	Vancouver M. & G. Co., Ltd., Kingston St., Victoria.	3 "	7	" "	
" 24	Middlings..	62039	" "	3 "	7	" " ...	

SESSIONAL PAPER No. 14

MIDDLINGS (SHORTS.)

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.			Vital weed seeds per ounce.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Protein.	Fat.	Fibre.			
E. J. MORGAN, INSPECTOR.						
	p. c.	p. c.	p. c.			
.....	16·85	3·06	0 65	None	55126	Fat too low. Feed Flour. Pass.
.....	17·65	3·42	1·75	"	55127	Fat low. Feed Flour. Pass.
.....	20·70	4·36	4·65	"	55128	Genuine.
.....	20 70	4·28	4 20	"	55129	"
.....	18·20	2·99	0 65	"	55130	Fat low. Feed Flour. Pass.
.....	16 60	3·04	1 65	"	55131	Fat low. Feed Flour. Pass.
.....	17 70	3 64	1 90	"	55132	Genuine. Feed Flour.
.....	15·70	3·46	3 95	"	55133	Genuine.
.....	19 80	3·90	4 20	"	55134	"
.....	15 60	3·96	0 90	"	55135	" Feed Flour.
D. O'SULLIVAN, INSPECTOR.						
.....	20 50	5 78	6 90	None	62031	Genuine.
Reg. No. 63.....	16 25	4·16	10 22	"	62032	Some excess fibre Pass.
.....	17 00	3 04	0 90	"	62033	Fat, low. Feed flour Pass
.....	19 40	4·84	7 50	"	62034	Genuine
.....	19 15	5 54	7·25	"	62035	"
.....	21 10	4 96	8·00	116 Large Quarters. 14 Tumbling Mustard.	62036	Genuine. Excess, vital weed seeds
.....	17 15	4 44	9 29	None	62037	Genuine.
.....	14 80	4 08	7 45	"	62038	"
.....	17 40	2 82	4 05	"	62039	Fat, low. Pass.

APPENDIX C.

BULLETIN No. 312—MOLASSES.

OTTAWA, April 15, 1915.

J. U. VINCENT, Esq.,
Deputy Minister Inland Revenue.

SIR,—I beg to hand you a report of work done upon one hundred and forty (140) samples purchased by our inspectors throughout Canada, under the name of Molasses (Melasse).

Molasses has never been defined in Canada under the Adulteration Act; and the present inspection appears to show that the term has no very definite signification for the consuming public. This I infer from the fact that no complaints have been received from consumers, although the character of the article, as evidenced by this report, is extremely variable. The content of total solids varies from above 80 to less than 70 per cent; reducing sugars from 37 to less than 10 per cent; cane sugar from 54 to less than 20 per cent; and ash (mineral matter) from above 9 to less than 1 per cent.

Any complaints which have been received concerning molasses have come from outside sources, and charge that an article not considered fit for human consumption at the place of its production is supplied to the public of Canada. The following statement, made to the Commissioner of Trade and Commerce, by a high authority in Barbados, deserves consideration.

"That 'black strap' molasses is not fit for human food and it seems to me that the Canadian Government should let the people know what they are buying as syrup or molasses. Nearly every civilized country now has its pure food laws and I think the Canadian Government should compel those manufacturers who treat 'black strap' molasses in such a way as to give it the appearance of High Grade syrup to so mark their product that any purchaser will know what he is getting. I am sure that if Canadians in general knew the nature of the 'black strap' molasses they would not think it fit for human food. I understand that even the working classes in Canada insist upon having the highest quality of meat and even the choicest cuts. Why then should they be willing to buy molasses and syrup which at best is fit for nothing but cattle food? We in Barbados are very careful to prevent inferior molasses being exported as high grade and we have very strict laws to prevent the mixing of molasses. I may call your attention to the Molasses Mixing Prohibition Act enacted by the Governor, Council and Assembly of Barbados in 1912 which provided that any one responsible for mixing fancy or muscovado molasses with vacuum pan molasses with intent that the same may be sold or exported in that state or anyone who sells or exports any fancy or muscovado molasses so mixed shall be liable to a penalty not exceeding one hundred pounds for the first offence and for the second or any subsequent offence shall be liable on summary conviction to be imprisoned for a period not exceeding six months with or without hard labour. Any person who sells or exports any vacuum pan molasses in any package not branded or marked in a legible and conspicuous manner 'V.P. Molasses' is liable to a penalty not exceeding fifty pounds. It is provided that all penalties imposed by this Act shall be recovered in a summary manner before a police magistrate on the complaint of any person and shall be paid one-third

to the complainant, one-third to the informer if any other than the complainant, and the residue into the public treasury to the credit of the general revenue. The informer's share is paid to the Inspector General of Police if the Inspector General of Police states in writing that there is an informer who does not desire his name to be disclosed. If the Canadian Government were equally careful to prevent the mixing of molasses and the sale of inferior grades of molasses and syrups however manufactured except when marked in such a way that the purchaser would know exactly what he is getting I believe that we could easily find a market in Canada for all the muscovado molasses and cane syrup we can produce in Barbados."

The results of analysis enclosed, do not furnish any evidence which would stamp the article sold in Canada as being in any way harmful to the health of the consumer. Examination of the ash for heavy metals (lead, zinc, etc.) fails to reveal these in more than harmless and negligible traces. The presence of sulphurous acid, used as a bleaching agent, is usually declared on the label; and is not present in amount that can be regarded as dangerous to health.

It remains quite true, however, that from the æsthetic point of view, as well as in regard to nutrient values, the samples now reported represent very different food substances, which, in all fairness to the consumer, as well as to the producer, should bear distinguishing names. It is impossible, of course, for this department, to dictate the use of language; and it may be well to inquire as to the meaning of the word *molasses,* as used in commerce. The following explanation is quoted from Wiley's "Foods and their Adulteration," second edition, p. 477:

"*Molasses.*—The term 'molasses' is properly applied to the saccharine product which is separated from sugar in the process of manufacture. It is well to clearly discriminate in the use of the term in order that no confusion or misunderstanding may arise. To this end the terms 'syrup' and 'molasses' may be contrasted. A syrup is the direct product of the evaporation of the juice of a sugar-yielding plant or tree without the removal of any of the sugar. The term molasses applies to the same process with the exception of the fact that sugar has been removed at least partially by crystallization and some kind of mechanical separation of the crystals from the remaining liquid. Molasses, therefore, to use a term employed in chemistry, may be considered the 'mother liquid' which has produced the crystallization of the sugar. The production of molasses has already been sufficiently described in the article on sugar making. The molasses is either separated by gravitation as in the old style of drying sugar or, as at the present time, almost exclusively by centrifugal action. The molasses naturally contains the substances in solution or suspension which are not retained upon the gauze of the centrifugal. It differs from the total mass of evaporated sugar liquid only in the fact that a large portion of the sucrose or crystallizable sugar has been separated. The sugar juices of the cane and sorghum contain considerable quantities of sugar of a kind different from sucrose or common sugar, namely, an invert sugar, a 'reducing sugar', as it is called, which consists usually of about equal parts of dextrose and levulose. During the process of manufacture small portions of the sucrose are converted into sugar of this kind thus increasing its quantity. In the final crystallization there is always a portion of sugar uncrystallized remaining as a viscous liquid in contact with the crystallized particles. This natural invert sugar which is in the juice, the small portion formed from the sucrose during the process of manufacture, and the part of sucrose remaining uncrystallized in the mother liquid constitute the molasses. In the washing of sugar the water which is used also passes into the molasses, thus diluting it somewhat from its natural consistence. In the sugar refinery the molasses is made up of practically such materials as just mentioned, but inasmuch as the separation of the sugar is more complete the other portions of the molasses, namely, the mineral salts, particularly appear in a very much larger proportion than in the ordinary molasses as will be seen by the analysis of these bodies.

"*Sugar Cane Molasses.*—Since the introduction of modern processes of making sugar, namely the vacuum pan and centrifugal process, the character of molasses from

the sugar cane factory has constantly deteriorated. This is a natural deterioration due to the improvement in the method of sugar making. Much larger quantities of sugar are now obtained in a crystallized state than formerly. The molasses is to this extent impoverished and the impurities contained therein increased proportionately. It is quite common now in the process of manufacture of sugar from sugar cane to secure at least three crystallizations.

"*First Molasses.*—When the sugar is crystallized in the vacuum pans and separated from the molasses in the centrifugal the product which is obtained is called 'first molasses.' Usually this molasses is diluted to a sirup and reboiled in connection with the clarified juices direct from the sugar cane and thus a second portion of sugar is obtained or the molasses may be boiled separately and a second crystallization of the sugar separated by the centrifugal. The molasses from this product is called 'second molasses' and is inferior in quality to the first molasses.

"*Third Molasses.*—The second molasses is reboiled to a thick consistency, placed in wagons, and transferred to a warm room where it is allowed to remain, sometimes for two or three months, when a third crystallization takes place. The sugar from this crystallization is separated as usual by the centrifugal, and a third molasses produced of still greater inferiority. Thus, in the best sugar factories high-grade molasses is not made in the United States but only that of inferior quality. This molasses is largely used for fermentation, or is fed to the mules on the plantations. It is also employed to a certain extent for mixing purposes as indicated above.

ANALYSIS of First, Second and Third Molasses.

Grades.	Total Solids.	Sucrose.	Dextrose.	Levulose.	Ash.	Albuminoids	Amids.	Acids and Gums
	%	%	%	%	%	%	%	%
First	80·00	53·60	8·76	8·00	4·00	0·20	0·94	4·50
Second	80·00	41·70	12·20	12·50	5·35	0·25	1·50	6·50
Third	80·00	31·70	15·00	16·50	6·30	0·30	2·00	8·20

"The increasing content of dextrose and levulose, of ash, acids, and gums, and the decreasing content of sucrose or pure sugar are characteristic of the second and the third molasses.

"The above analyses show the progressive change in molasses due to the separation of the successive portions of sugar and indicate the lowering of the quality of the molasses, at least for food purposes, as the separation of the sugar becomes more complete. It is evident that in the manufacture of sugar in this way, in which very probably an effort is made to get the highest possible yield, the resulting final molasses is a substance quite unfit for human consumption.

"*Sugar-house Molasses.*—Attention has already been called to the production of sugar-house molasses or sugar refinery molasses. This is a product which in its physical appearance is far superior to the third molasses of the sugar factory and this superiority is due to the fact that all suspended matter in the refined molasses has been removed by filtration. In so far as soluble material which are not food is concerned, however, the refinery molasses contains even larger proportions than the sugar factory molasses. The refinery molasses is not usually considered suitable for food except when diluted as has been before indicated in the way of mixing sirup."

In 1909 (See Bulletin No. 177) I reported upon 75 samples purchased as table syrups. The majority of these were found to be mixtures of glucose (corn syrup) and cane sugar syrups, or molasses, the latter added to give increased sweetness and greater palatability. Most of these articles are very desirable foods; and it may be of interest to cite the opinion of Dr. Wiley in regard to this class of foods:

"*Mixed Syrups.*—By far the greater part of the syrups used in the United States are mixtures of two or more saccharine substances. The glucose of commerce is the base and perhaps chief constituent of the most of these mixtures. The glucose, being colourless and of a thick body, forms an ideal base as far as physical properties are concerned, for a table sirup. The quantity used varies very largely, but in general the glucose constitutes by far the larger percentage of the mixed product. Since glucose has only a very slightly sweet taste and is devoid of the general palatable properties which make a syrup attractive, it is coloured and flavoured with the product of the sugar cane or the maple tree. Sorghum syrup is also used very extensively in mixing. The process of mixing is an extremely simple one. The glucose is warmed until it is easily workable and the added syrups or molasses which are used for colouring and flavouring mixed intimately with it. In large factories this is done by mechanical mixers while in a small way it may be done by hand. Instead of glucose, one sirup itself may be used as the base and mixed with another for flavour, as, for instance, in the case of mixed maple sirup. Very commonly the brown sugar is melted with water and this is used as a base for the formation of syrups. Whichever may be the case the principle of the process remains the same, namely, using as the base a cheaper and has palatable material.From a dietetic and commercial point of view there can be no valid objection raised to this method of mixing syrups. The product is as a rule, attractive, palatable, and wholesome.

"Attention has already been called to the fact that the final molasses in the sugar refinery, after all the sugar has been extracted that can possibly be gotten out by the most approved modern process, is used very extensively for mixing purposes. This molasses has a very high content of soluble salts, reaching often 8 per cent or more, which give a distinct flavour and character. It also has acquired a certain flavour quite distinct from cane syrup, which gives it a peculiar value as a flavouring agent. It is commonly known as 'refiner's syrup' and is a clear product free from suspended matter by reason of its repeated filtration. It can thus be mixed with glucose and forms a bright mixture, devoid of suspended matter and turbidity, and is attractive to the eye. Ten per cent of molasses of this kind added to a glucose will make a mixture which is attractive and saleable, the objectionable qualities of each ingredient being obscured. The other products which are used for mixing with the glucose in the manufacture of table syrup consist of the molasses obtained from cane sugar factories or the syrups made directly from the sugar cane and sorghum. All these bodies have valuable mixing properties and small quantities of them are sufficient to give colour and flavour to the mixed product."

It will be evident from what has been said that there exist different grades of molasses, some containing so much sugar (sucrose) and so little mineral matter (ash) as to possess a high food value, and to be very desirable foods. The final product of the treatment of sugar cane juice, is, on the other hand, so poor in residual sugar, and so loaded with mineral matters, added during the processing for removal of sugar, as to be a very questionable article of diet. This product, otherwise known as *treacle* or *black strap,* finds its proper place as a cattle food, or as material for the production of alcohol. Modern methods of sugar production are such as to render this final product much less desirable as a food than formerly; and, if sold for human food at all, it should certainly be known by a specific and truly distinguishing name. The word *molasses* is evidently understood to stand for a perfectly edible article, and should therefore be defined in such a way as to exclude *black strap.* This may be most easily done by requiring that molasses shall contain not less than a fixed minimum amount of sugar, and not more than a fixed maximum amount of ash. Also that it shall be entirely free from metallic impurities, and shall not contain dangerous amounts of sulphurous acid, or other foreign matter.

The standards for molasses recommended by the Washington authorities, are as follow:

"Molasses is the product left after separating the sugars from massecuite, melada, mush sugar or concrete, and contains not more than twenty-five (25) per cent of water, and not more than five (5) per cent of ash."

These standards are satisfactory so far as they go; but I think that they might be made still more definite, to advantage. The present report will serve the purpose of giving information in regard to molasses, as found in the markets of Canada; and will supply a basis for further consideration of the matter, with a view to recommending satisfactory standards.

Of the 140 samples reported, 75 contain less than 40 per cent of cane sugar (sucrose), and should, I think, on this account, be considered as doubtfully suited for human food under the name molasses; 38 samples contain more than 5 per cent of ash, and would undoubtedly be more correctly offered as *black-strap* than as molasses. These decisions can only be regarded as conditional, until such time as legal standards are established.

I beg to recommend publication of this report as Bulletin No. 312.

I have the honour to be, sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Vendor as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1915.							
Jan. 11	Molasses....	54231	Cahill & Co., Halifax, N.S.	1 qt.	14	Unknown.....	R. B. Seaton & Co. Halifax, N.S.
" 12	" ...	54232	G. P. Mitchell & Sons, Halifax, N.S.	1 "	Nil.	"	J. T. Dew, Antigua, W.I.
" 12	" ...	54233	R. B. Seaton & Co., Halifax, N.S.	1 "	10	James & Swan, Barbadoes, W.I.	Manufacturer.....
" 12	" ...	54234	T. F. Courtney & Co., Halifax, N.S.	1 "	13	Unknown.....	Dom. Molasses Co. Halifax.
" 12	" ...	54235	R. N. McDonald Estate of Halifax, N.S.	1 "	12	"	" "
" 12	" ...	54236	E. H. Crease & Sons, Halifax, N.S.	1 "	13	"	G. P. Mitchell & Sons, Halifax.
" 18	" ...	54237	Dominion Molasses Co., Halifax, N.S.	1 "	Nil.	"	Brotherson Estate, St. Kitts, B.W.I.
" 18	" ...	54238	" " "	1 "	"	"	S. P. Musson, & Sons, Barbadoes.
" 18	" ...	54239	" " "	1 "	"	"	"
" 18	" ...	54240	" " "	1 "	"	"	G. F. Huggins, Port of Spain, Trinidad, B. W. I.
DISTRICT OF NOVA SCOTIA—							
1914.							
Dec. 5	Molasses. ..	65812	The 2 Barkers Ltd., New Glasgow.	1 qt.	12	Unknown.....	McCulloch, Creelman & Urquhart Truro, N.S.
" 5	" ..	65813	A. A. McDonald, New Glasgow.	1 "	14	Mitchell Molasses Co., Barbadoes, W.I.	G. P. Mitchell, Halifax.
" 5	" ...	65814	James McArthur, New Glasgow.	1 "	15	S. P. Musson & Sons, Barbadoes, W.I.	....
DISTRICT OF PRINCE EDWARD ISLAND—							
Oct. 24	Molasses....	60136	Stewart & Sons, Charlottetown, P.E.I.	3 jars.	34	....	Carvell Bros., Charlottetown.
" 24	" ...	60137	Jenkins & Sons, Charlottetown, P.E.I.	3 "	48	....	" "
" 27	" ...	60138	Coffin & Co., Charlottetown, P.E.I.	3 "	35	.....	R. E. Mutch & Co., Charlottetown.
27	" ...	60139	J. C Crabbe, "	3 "	35	. . ..	Nicholson & Messerney, Charlottetown.
" 27	" ...	60140	W. W. Walker, "	3 "	48	Leacock & Co. Barbadoes.	....

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MOLASSES.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.							No. of Sample.	Remarks, and Opinion of the Chief Analyst.
	Water.	Solids.	Reducing Sugar.	Sucrose.	Total Sugar.	Ash.	Organic matter other than Sugar.		
R. J. WAUGH, INSPECTOR.									
	p.c.	pc.	p.c.	p.c.	p.c.	p.c.	p.c.		
Porto Rico	23·30	76 70	12·72	47·52	60·24	1·00	15·46	54231	
Sold as pure	27·65	72·35	13·84	52·68	66·52	2·86	12·77	54232	
" "	27·80	72·20	30 56	34·92	65·46	1·20	15·54	54233	Sucrose low
	26 50	73·50	20·74	41·80	62·54	1·44	9·52	54234	
Fancy Barbados	26 65	73·35	21·24	40·44	61·68	1·14	10·53	54235	
" "	24 30	76·70	31·28	33 92	65·20	1·60	9·90	54236	Sucrose low.
Fancy St. Kitts	23·58	76 42	26·54	38·44	64 98	1·08	10 36	54237	" "
Fancy B. W. I	22·20	77 80	30 14	36 08	66·22	0·98	10 60	54238	" "
Bright Fancy	27·90	72 10	16 84	42·20	59 04	1·32	10·74	54239	
Trinidad	25·30	74·70	19 36	42·00	61·36	5·12	8·22	54240	
W. A. PETIPAS, TEMP. INSPECTOR.									
	26 66	73·34	19 20	44·40	63 60	1 60	8·14	65812	
	26·56	73 44	26·56	43 20	69 76	1·86	1 82	65813	
	27 51	72 49	22 36	45 00	67 36	1 92	3 21	65814	
WM. A. WEEKS, INSPECTOR.									
	26 83	73 17	22 76	34 52	57 28	2 80	12 99	60136	Sucrose low
	20 93	79 07	34 84	32 36	67 20	2 04	9 83	60137	
	26 88	73 12	22·36	42 20	64 56	2 16	6·40	60138	
	26 85	73 15	23 12	36 48	59 60	1 34	12 21	60139	
	26 73	73 27	21·80	40 44	62 24	1 12	9 91	60140	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher
DISTRICT OF NEW BRUNSWICK—							
1914.							
Nov. 10	Molasses....	59616	2 Barkers, Ltd., St. John, N.B.	1 qt..	10	....	Crosby Molasses Co., St. John, N.B.
" 11	" ...	59617	N. J. Alexander, St. John, N.B.	1 "	15	....	Baird & Peters, St. John, N.B.
" 20	" . .	59618	M. E. Doohan, Fredericton, N.B.	1 "	15	..... .	Jones & Schofield, St. John, N.B.
Dec. 8	" ...	59619	Sussex Mercantile Co., Ltd., Sussex, N.B.	1 "	15	... .	Baird & Peters, St. John, N.B.
" 10	" ...	59620	J. B. Snowball Co., Ltd., Chatham, N.B.	1 "	15	....	" "
DISTRICT OF QUEBEC CITY—							
Nov. 3	Molasses ...	60714	O. Lacroix, 19 Rue St. Joseph, Quebec.	1 qt..	15	Musson & Son, Barbados.	N. Turcotte & Cie,
" 3	" ...	60715	" "	1 "	15	" "	Gagnon & Garnet.
" 4	" ...	60716	A. Grenier, 94 Rue St. Jean, Quebec.	1 "	15	.....	Joseph & Co.....
" 5	" ...	60717	Cantin & Frere, 271 Rue St. Joseph, Quebec.	1 "	15	....	Turcotte & Frere..
" 5	" ...	60718	A. Pichette, 176 Rue D'Orchester, Quebec.	1 "	15	....	J. B. Renaud & Cie.
DISTRICT OF QUEBEC PROVINCE—A. PELLETIER, T. GENDREAU,							
Nov. 4	Molasses. ..	56403	Dame Hector, Hudon. ..	3 pts.	20	M. Lanning & Co., Barbados.	.....
" 4	" ...	56407	Abraham Kilallah, Hudon	3 "	20	Jones & Swan.....	Joseph & Cie, Quebec.
" 6	" ...	56408	Philipe Bourgoin, Price..	3 "	13	S. P. Musson, Barbados.	....
" 6	" ...	56411	Philias Cote, St. Octave..	3 "	19	St. Lucie, Barbados.	....
" 6	" ...	56413	Louis M. Langlais, St. Octave.	3 "	20	.....	....
" 21	" ...	2725	Henri Fournier, Cap St. Ignace.	1 qt	15	....	J. B. C. Letellier, Quebec.
" 21	" ...	2727	Jos. M. Dube, Cap St. Ignace.	1 "	15	....	Gagnon & Garent, Quebec.
" 23	" ...	2730	Jos. Fournier, St. Thomas, P.Q.	1 "	15	.. ..	N. Rioux & Cie, Quebec.
" 24	" ...	2733	Jos. Breton, St. Pierre...	1 "	15	....	" " ..

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MOLASSES.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Reducing Sugars.	Sucrose.	Total Sugar.	Ash.	Organic matter other than Sugar.		
JNO. C. FERGUSON, INSPECTOR.									
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
Barbados, Fancy	26·05	73·95	22·76	39·92	62·68	3·80	7·47	59616	
Barbados	25·66	74·34	18·64	46·24	64·88	2·46	7·00	59617	
Barbados, Fancy	26·34	73·64	20·32	41·88	62·20	2·86	8·58	59618	
"	25·86	74·14	22·76	38·04	60·80	2·20	11·14	59619	Sucrose low.
Brand "Red Band."	25·86	74·14	23·12	43·68	66·80	1·30	6·04	59620	
F. X. W. E. BELAND, INSPECTOR.									
	26·83	73·17	20·48	40·44	60·92	1·14	11·11	60714	
	31·23	68·77	37·36	16·88	54·24	1·82	12·71	60715	Sucrose very low.
Barbados, Choice	31·13	68·87	12·12	46·60	58·72	2·96	7·19	60716	
Barbados, "Beaver" Brand. Extra Fancy Molasses.	26·88	73·12	14·52	42·80	57·30	1·96	13·84	60717	
	26·88	73·12	21·64	41·24	62·88	1·32	8·92	60718	
O. BROCHU, J. AUDET AND N. CADIEUX, TEMPORARY INSPECTORS.									
	26·81	73·19	18·08	42·40	60·48	1·96	10·75	56105	
	26·71	73·39	21·64	43·80	65·44	1·28	6·67	56107	
	27·76	72·24	29·24	31·20	60·48	0·80	10·96	56109	Sucrose low.
	26·96	73·04	24·32	39·64	63·18	0·85	9·01	56111	
Barbados	30·85	69·15	23·72	37·08	60·80	1·80	6·55	56113	Sucrose low.
	27·38	72·62	20·68	40·04	60·72	0·64	11·26	2729	
	26·41	73·59	21·48	37·68	61·56	2·34	9·67	2727	Sucrose low.
	27·98	72·02	11·20	47·60	58·80	1·80	11·44	2728	
	26·08	73·92	21·64	43·20	64·84	1·20	7·88	2730	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF QUEBEC PROVINCE—							
1914							
Oct. 27	Syrup Ami.	2571	Joseph Dinelli, Armagh..	1 qt.	15	....	Turcotte & Frère, Quebec.
" 27	" Fancy Barbados.	2572	" " ..	1 "	15	....	N. Rioux, Quebec.
" 27	Fancy molasses Barbados.	2573	Jos. Langlois, Armagh...	1 "	12	Manning & Co....	Turcotte & Frère..
" 27	Syrup molasses.	2582	Cléophas Beaudoin, Armagh.	1 "	15	.....	Quebec Preserving Co., Quebec.
" 27	Molasses....	2587	Arthur Fredette Armagh.	1 "	13	....	N. Turcotte & Cie., Quebec.
Nov. 9	"	3701	A. J. Caillonette, Ste. Justine.	1 "	15	.....	Quebec Preserving Co., Quebec.
" 10	"	3705	Jos. Doyon, Ste. Justine.	1 "	15	.....	J. B. Renaud.....
" 10	"	3706	" " ..	1 "	15	....	Quebec Preserving Co., Quebec.
" 10	" .. .	3707	Bolduc & Genest, Ste. Sabine.	1 "	15	....	Drouin & Frère...
" 12	" . .	3709	Jos. Turgeon, Ste. Isadore.	1 "	15	... .	Bernier, Scott Junction.
" 13	"	3716	" " ..	1 "	15	....	Drouin & Frère, Quebec.
Dec. 1	"	2867	Dorchester Lumber, Ste. Malachi.	1 "	15	....	Dominion Molasses
" 1	"	2868	" " ..	1 "	15	....	" " ..
" 1	" ...	2869	" " ..	1 "	15	.....	" "
" 2	"	2875	O. Audet. St. Léon de Standon.	1 "	15	....	Dorchester Lumber.
" 3	"	2879	A. Cloutier, St. Odilon, Cranborn.	1 "	15	....	.....
" 4	"	2881	L. J. Audet, St. Edward.	1 "	15	... .	Dorchester Lumber.
" 4	"	2882	" " ..	1 "	15	.....	" " ..
" 8	"	3719	M. Dechine, St. Grmaine Station.	1 "	15	....	Gagnon & Garent, Quebec.
" 9	"	3723	D. Fortier, Ste. Rose, Dorchester.	1 "	15	....	Dionne St. George, Beauce.
" 10	"	*3729	D. Roy, Ste. Prospère...	1 "	25	....	....
" 21	"	3732	A. Mercier, St. Patrice de Beauvinage.	1 "	15	....	....
" 22	"	3735	O. Tradette, St. Narcisse-head Bois.	1 "	15	....	N. Reno, Quebec..
" 22	"	3738	A. Demers, St. Narcisse-head, Bois.	1 "	15	....	Gagnon & Garent, Quebec.

Both samples broken in transit.

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MOLASSES.

Inspector's Report. (Is not an expression of opinion.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Reducing Sugars	Sucrose.	Total Sugar.	Ash.	Organic matter other than sugar.		
Continued.									
	p.c.	p.c.	p.c.	p.c	p.c.	p.c.	p.c.		
.....	27·08	72·92	11·28	49·24	60·52	1·12	11·28	2571	
....	27·28	72·72	24·84	38·64	63·48	2·04	7·20	2572	Sucrose low.
....	27·43	72·57	23·72	37·68	61·40	1·82	9·35	2573	"
....	26·03	73·97	24·48	39·24	63·72	1·10	9·15	2582	"
.. ..	26·86	73·14	23·52	37·88	61·40	1·60	10·14	2587	"
Extra Fancy Barbados....	27·03	72·97	21·44	37·88	59·32	1·08	14·57	3701	"
....	33·12	66·88	9·72	46·20	55·92	0·70	10·26	3705	
Favorite	26·73	73·27	20·88	40·44	61·32	1·50	10·45	3706	
Fancy Barbados.... ..	27·38	72·62	19·92	39·84	59·76	1·38	11·48	3707	
"	26·12	73·88	20·32	40·44	60·76	2·72	10·40	3709	
"	27·03	72·97	14·72	43·80	58·52	4·20	10·25	3716	
Gingerbread	19·38	80·62	28·48	18·60	47·08	7·32	26·22	2867	Ash too high. Sucrose very low.
Selected.	25·28	74·72	21·24	37·08	58·32	3·44	12·96	2868	Sucrose low.
Fancy Barbados	26·23	73·77	19·76	40·64	60·40	2·80	10·47	2870	
.. . . . .	25·78	74·22	19·56	39·84	59·40	2·72	13·10	2875	
Scott Fancy Barbados	27·03	72·97	19·36	39·64	59·00	1·84	12·13	2879	
Selected.	26·98	73·02	21·24	39·84	61·08	4·74	7·20	2881	
Evangeline Johnson .	27·73	72·27	19·36	42·60	61·96	1·28	9·03	2882	
.. . . .	27·08	72·92	29·24	34·92	64·16	1·22	7·54	3719	Sucrose low
. . . . .	25·73	74·27	22·00	37·08	59·08	3·40	11·73	3729	"
Fancy Barbados . . .								* 3728	
. . . . .	27·03	72·97	21·44	39·24	60·68	0·80	11·43	3732	
. . . . .	26·58	73·42	21·44	41·40	62·84	1·08	8·60	3733	
. . . .	26·48	73·52	21·08	42·80	63·88	1·54	8·10	3738	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF QUEBEC PROVINCE—							
1914.							
Dec. 23	Molasses....	3741	Jos. Blais, Ste. Bernard, Dorchester.	1 qt.	15	....	Drouin & Frere, Quebec.
Nov. 2	" ...	2400	Ernestide B. Paroisse, Ste. Jerome.	1 "	13	.....	.....
" 2	" ...	210	Honorias Giroux, Ste. Agathe des Monts.	1 "	13	.....	.....
" 18	" ...	226	J. N. Desjardins, Ste. Jerome.	1 "	19	....	.....
DISTRICT OF THREE RIVERS—							
Oct. 26	Molasses ...	2648	W. H. Lacasse, L'Assomption.	1 qt.	22	.....	Chevalier Pouliot, Joliette.
" 26	" ...	2649	Louis Pauze.....	1 "	15	.....	Chaput Son, Montreal.
" 28	" ...	2674	Archibald Duff, Charlemagne.	1 "	15	....	Matthewson Sons, Montreal.
" 28	" ...	2675	Euclid Beauchamp, Charlemagne.	1 "	13	.....	Hudon Orsali, Montreal.
" 28	" ...	2687	Edm. Robillard, St. Paul L'Ermite.	1 "	28	.....	Jos. Ward, Montreal.
DISTRICT OF VALLEYFIELD AND EASTERN TOWNSHIPS—							
7	Molasses ...	62601	D. Cusson, St. Johns, P.Q.	1 qt.	12	....	E. Gervais, St. John.
" 7	" ...	62602	L. E. Choquette, Farnham	1 "	13	....	Wm. Galbraith, Montreal.
" 12	" ...	62603	A. Nadeau, Bedford	1 "	13	....	Hudon Hebert Co., Montreal.
12	" ...	62604	C. O. Jones, Bedford....	1 "	13	.....	Forbes Bros., Montreal.
" 22	" ...	62605	La Compagnie Dion, Ltée, Valleyfield.	1 "	8	.....	Laporte Martin, Montreal.
" 9	" ...	62606	F. X. Leblanc, Ste. Hyacinthe.	1 "	10	.....	Jos. Ward, Montreal.
" 9	" ...	62607	L. A. Gendreau, St. Hyacinthe.	1 "	13	.....	E. Lafrance, Ste. Hyacinthe.
" 9	" ...	62608	N. Gosselin, St. Hyacinthe	1 "	13	.....	W. Valin, Ste. Hyacinthe.
" 9	" ...	62609	Lassond & Frere, St. Hyacinthe.	1 "	15	.....	L. Chaput Fils & Co., Montreal.
" 9	" ...	62610	J. C. Mousseau, Ste. Guillaume.	1 "	10	.....	Laporte Martin Co., Montreal.

SESSIONAL PAPER No. 14

MOLASSES.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Reducing Sugars.	Sucrose.	Total Sugar.	Ash.	Organic matter other than Sugar.		
Concluded.									
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
.....	26·28	73·72	23·56	43·20	66·76	1·86	5·10	3741	
Fancy Barbados	26·48	73·52	14·72	51 68	66·40	3·00	4·12	2400	
"	26·88	73·12	21·08	44·64	65·72	1·32	6·08	210	
"	27·28	72 72	20·88	40·24	61·12	1·38	10·22	226	
DR. V. P. LAVALLEE, INSPECTOR.									
.....	27·00	73 00	21 08	41·80	62 88	1 82	8 30	2648	
.....	27·46	72·54	21 80	39·24	61 04	0·98	10·52	2649	
.....	26 96	73·04	21 80	39·24	61·04	1 88	10 12	2674	
.....	26·16	73 84	21 12	41 80	62 92	1 44	9·48	2675	
.....	27 00	73·00	22·56	43·60	66·16	1·22	5 62	2687	
D. J. KEARNEY, ACTING INSPECTOR.									
.....	27 06	72 94	21 80	46·40	68 20	1 24	3 50	62601	
.....	27 31	72 69	22 36	39 04	61 40	0 94	10 35	62602	
.....	26 61	73 39	18 44	44 80	62 24	1 58	9 57	62303	
.....	27 16	72 84	23 32	39 44	62 76	1 16	8 92	62604	
.....	27 81	72 19	20 12	43 80	63 92	2 32	5 95	62605	
.....	25 81	74 19	22 96	38 84	61 80	1 54	10 85	62606	Sucrose low.
.....	26 46	73 54	27 32	36 04	63 36	1 06	9 12	62607	"
.....	26 21	73 79	25 04	45 04	70 08	1 40	2 31	62608	
.....	27 96	72 04	20 48	41 60	62 08	1 08	8 88	62609	
.....	26 46	73 54	24 88	38 64	62 88	1 52	9 50	62610	Sucrose low.

Date of Collection.	Nature of Sample.	No. of Sample.	Names and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF MONTREAL—							
1914.							
Dec. 3	Molasses. ..	62545	Barbeau Frere, 520 St. Catherine St., E. Montreal.	1 qt.	15	.....	Hudon Hebert & Cie., Montreal.
" 3	"	62646	Ed. Tessier, 982 St. Catherine St., Montreal.	1 "	15	.....	Unknown. .....
" 3	"	62547	J. Forest, 1395 St. Catherine St., Montreal	1 "	13	.....	L. Chaput fils & Cie, Montreal.
" 4	"	62548	Chas. E. Lord & Frere, 311 Amherst St., Montreal.	1 "	16	.....	Hudon, Hebert & Cie, Montreal.
" 4	"	62549	M. L. Pelletier & Co., 605 Demontigny St., Montreal.	1 "	15	.....	Patenaude, Larue, Carignan, Ltd., Montreal.
DISTRICT OF OTTAWA—							
Oct. 23	Molasses....	63521	Anastase Roy, Maniwaki.	3 bots.	30	.....	Provost & Allard, Ottawa.
" 24	"	63522	J. L. P. Sanders, Kemptville.	3 tins.	30	Ramsays, Ltd., Montreal.	Gilmour & Co., Brockville.
Nov. 6	"	63523	Hellard, Ltd., Rideau St., Ottawa.	3 bots.	15	.....	S. J. Major, Ltd., Ottawa.
" 6	" ...	63524	T. W. Collins, Ottawa.	3 "	15	.....	H. N. Bate & Sons, Ottawa.
" 6	"	63525	L. Caron, Ottawa.	3 "	15	.....	Provost & Allard, Ottawa.
DISTRICT OF KINGSTON—							
Oct. 28	Molasses....	61570	R. W. Marshall, Kingston.	3 tins.	30	Ramsay's, Montreal.	.....
Nov. 2	"	61571	G. W. Boyes, Napanee...	3 "	30	" " ..	.....
" 2	" ...	61572	W. H. Milling, Napanee..	3 "	25	" " ..	.....
" 3	"	61573	S. R. Artis, Belleville....	3 "	30	John Sloan, Toronto.	.....
3	" ..	61574	R. Elvins, Belleville.....	3 "	30	Ramsay's, Montreal.	.....
DISTRICT OF TORONTO—							
Nov. 16	Molasses....	64621	J. D. Donsch, Collingwood.	3 bots.	10	.....	Perkins Inee Co.
" 17	"	64622	E. Armstrong, Barrie.. .	3 "	15	.....	Unknown .....
" 18	"	64623	H. J. Charlebois, Penetang.	3 "	15	.....	" .....
" 19	"	64624	The Playfair Preston Co., Ltd., Midland.	3 "	18	.....	Parson & Brown, Toronto.
" 20	"	64625	Geo. Vick & Son, Orillia..	3 "	12	.....	Unknown.. .. ..

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MOLASSES.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Reducing Sugars.	Sucrose.	Total Sugar.	Ash.	Organic matter other than Sugar.		
D. J. KEARNEY, INSPECTOR.									
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		
.....	27·06	72 94	21 08	39·64	60·72	1·38	10·84	62545	
.....	26 06	73·94	27·52	27·36	54·88	3·32	13 74	62546	Sucrose very low.
.....	26·81	73·19	21·80	39·64	61·44	2·20	9 55	62547	
.....	27·36	72·64	19·20	41·60	60·80	1·74	10 10	62548	
.....	26·79	73·21	24 08	40·68	64·76	2·84	5 61	62549	
J. A. RICKEY, INSPECTOR.									
Fancy Barbados.....	27·21	72·79	20·48	39·84	60·32	3·20	9 27	63521	
Kitchen Brand Louisiana molasses.	25·11	74 89	17 68	35·88	53·56	5 26	6 07	63522	Ash too high. Sucrose low.
Extra Fancy.....	25·51	74 49	28 28	36·88	65 16	1·54	7 79	63523	Sucrose low.
.....	27 01	72 97	19 56	43·80	63 36	2 23	7 40	63524	
.....	25 21	74 79	19·76	41·60	61·36	3 60	9 83	63525	
JAS. HOGAN, INSPECTOR.									
.....	25·26	74 74	20·48	28·68	49 16	3·00	22 58	61570	Sucrose low.
.....	27·88	72 12	20·32	34·56	54 88	5 98	11 26	61571	Ash too high. Sucrose low.
.....	30 33	69 67	19 92	33 92	53 84	5 92	9 91	61572	
.....	27·88	72 12	20·88	32·12	53 00	7 03	12 09	61573	Sulphurous acid declared on label. Ash too high. Sucrose low.
.....	31 18	68 82	13·80	30·76	44 56	5 80	18 46	61574	Ash too high. Sucrose low.
H. J. DAGER, INSPECTOR.									
.....	30 53	79 47	22 3	23·32	45 68	9 36	24 43	64621	Ash too high. Sucrose very low.
.....	24 16	75·84	23 72	23·52	47 24	7 14	21 46	64622	
.....	27 31	72 69	27 92	17·76	45 68	6 32	20 69	64623	
.....	23 31	76 69	21 64	29 68	51 32	4 10	21 27	64624	Sucrose low.
.....	22 96	77 04	23 72	26 96	50 68	6 72	19 64	64625	Ash too high. Sucrose low.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
						DISTRICT OF HAMILTON—	
1914.							
Nov. 3	Molasses....	64542	D. A. McLean, Owen Sound	1 qt..	10	.....	Uknown.. . .....
" 5	" .. .	64543	John Sandelos, Hanover,	" .	10	.....	John Sloan & Co. Toronto.
" 6	" .	64544	J. Pleskey, Walkerton....	3 bots	12	.....	John Sloan & Co., Berlin.
" 6	" . ..	64545	Stephan Bros., " ..	" .	10	.....	Geo. E. Bristol & Co., Hamilton.
" 10	"	64546	H. F. Powell & Co., Ltd., Dundas.	1 qt..	10	.....	" "
						DISTRICT OF WINSDOR—	
Nov. 3	Molasses....	63932	John Scott & Co., Woodstock.	1 qt..	14	.....	Groeers, Ltd., Toronto.
" 3	"	63937	Wm. Briggs & Son, "	3 tins.	30	.....	" "
" 3	"	63938	W. Buckborough, "	" .	30	.....	Elliott Marr Co. London.
" 4	"	63942	Mrs. E. Gibson, Tillsonburg.	1 qt .	30	.....	Geo. Foster & Sons, Brantford.
" 4	"	63944	R. M. Teal, "	" .	12	West India Mollasses Co., Brantford.	.....
						DISTRICT OF MANITOBA—	
Nov. 3	Molasses....	61211	Wm. Muir, Brandon.....	3 pkgs	45	Codville Co., Winnipeg.	.....
" 3	"	61212	J. Bower & Co., "	" .	45	Jobin Marrin, Co., Winnipeg.	.....
" 12	"	61213	Gallaway Bros., Gladstone	3 pints	40	.....	.....
" 19	" . .	61214	T. R. Hardern, Portage & Stiles Ave., Winnipeg	3 cans	40	A. Macdonald, Co., Winnipeg.	.....
" 19	" ...	61215	Portage Provision Co., "	" ..	45	Codville Co., Ltd. Winnipeg.	.....
						DISTRICT OF SASKATCHEWAN—	
Oct. 31	Molasses....	64074	Colonial Grocery Co., Regina.	1 qt..	25	Crosby Molasses Co., St. John, N. B.	Cameron & Heap, Regina.
" 31	" ...	64076	S. B. Gerxa, "	" ..	30	Boston Molasses Co., Boston.	Cobb, Bates & Terxa, Boston.
Nov. 2	"	64079	Wheatland Mercantile Co. Mortlach.	" ..	40	.....	Codville Co.. Ltd.
" 4	" ...	64089	Stewarts Bakery, Moose Jaw.	" ..	25	Crosby Molasses Co., St. John, N. B.	A. Macdonald Co., Moose Jaw.
" 5	"	64090	Lalonde & Harrington "	" ..	50	No-Vary Products Co., Minneapolis	Moose Grocery Co. Moose Jaw.

SESSIONAL PAPER No. 14

MOLASSES.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Water.	Solids.	Reducing Sugar.	Sucrose.	Total Sugar.	Ash.	Organic matter other than sugar.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
H. J. DAGER, ACTING INSPECTOR.									
	p. c.	p. c.	p. c.	p. c.	p. c.	p.c.	p. c.		
.. ..	26·23	73·77	20·32	30·90	51·22	9·50	13·25	64542	Ash too high. Sucrose low.
....	24·88	75·12	24·81	23·88	48·72	4·86	21·54	64543	Sucrose very low.
.....	26·28	73·72	18·24	39·44	57·68	6·24	19·80	64544	Ash too high.
.....	25·43	74·57	26·56	22 36	48·92	6·80	18·85	64545	" " Sucrose very low.
....	27·43	72.57	24·64	20 08	44·72	6·06	21·79	64546	" "
JOHN TALBOT, INSPECTOR.									
.....	24·81	75·19	21 64	29·84	51·48	5·26	18 47	63932	Ash too high. Sucrose low.
"Sunset" Brand, choicest New Orleans Molasses.	23 36	76 64	25 40	23 32	48·72	5·80	22 12	63937	" "
"Ginger Bread" Brand, choice West India Molasses.	25·81	74 19	36 76	14·64	51 40	3·88	18·91	63938	Sucrose very low.
Special West India Molasses.	23·36	76 64	20 48	25 44	45 92	6 10	24 62	63942	Ash too high. Sucrose low.
West India Molasses	25·56	74 44	19 92	25 24	45 16	7 80	21 48	63944	" "
A. C. LARIVIERE, INSPECTOR.									
"Reliance" Brand ..	24 96	75 04	21 44	24 48	45 92	1·78	29 12	61211	Sulphurous acid declared on label. Sucrose low.
"Challenge" "	19 86	80 14	24 64	26 96	51 60	7 50	20 94	61212	Sulphurous acid declared on label. Ash too high. Sucrose low.
Imported from New Orleans.	25 61	74 39	16·56	31 20	47 76	5 78	20 85	61213	Ash too high. Sucrose low.
... .	20 66	79 34	29 04	23 12	52 16	7 20	19 98	61214	Sulphurous acid declared on label. Ash too high. Sucrose low.
... .	21 71	78 29	24 84	27 72	52 56	7 06	18 53	61215	Ash too high. Sucrose low.
L. H. HALL, INSPECTOR.									
"Aunt Dinah" Brand..	26 66	73 34	15 64	32 96	48 60	5 60	19 14	64074	Ash too high. Sucrose low.
Porto Rico.	26 11	73 89	17 12	38 04	55 16	4 28	14 44	64076	Sucrose low.
"Gold Standard" Brand ..	24 66	75 34	21 24	30 24	51 48	6 20	17 66	64079	Ash too high. Sucrose low.
"Family" "	22 96	77 04	18·64	32 76	51 40	5 32	20 32	64080	
"No Vary" Brand, contains Sulphur Dioxide.	20 61	79 39	29 24	25 44	54 68	3 24	21 47	64080	Sucrose low.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF ALBERTA—	
1914.							
Nov. 18	Molasses...	52034	Pryce Jones (Canada) Ltd., Calgary.	3 tins	45	Dominion Molasses Co. Ltd., Halifax	.....
" 19	" ...	52035	Geo. J. Wood, Calgary...	1 qt..	30	.....	Campbell, Wilson & Horne, Calgary
" 23	" ..	52036	Sharpe & Page, Stettler..	3 tins	75	Dominion Molasses Co. Ltd , Halifax	.....
" 26	" ...	52037	Montgomery Bros., Wetaskiwin.	3 "	75	" " ..	.....
" 27	" ...	52038	A. M. Campbell, Lacombe	3 "	75	" " ..	.....
						DISTRICT OF ROCKY MOUNTAINS—	
Nov. 10	Molasses...	61704	Trail Grocery Co., Trail, B.C.	3 tins	75	Kelly Confection Co., Vancouver.	.....
" 10	" ...	61705	" " "	3 "	60	Ramsay Bro. & Co., Vancouver.	.....
" 10	" ...	61713	T. Lauriente & Son, Trail, B.C.	3 "	60	Dominion Molasses Co. Ltd., Halifax	.....
" 20	" ...	61721	Armstrong's Dept. Store, Merritt, B.C.	3 "	60	Kelly Confection Co., Vancouver.	.....
" 23	" ...	61728	Hudsons Bay Co., Kamloops, B.C.	3 "	45	Pacific Coast Syrup Co., Seattle.	.....
						DISTRICT OF VANCOUVER—	
Oct. 27	Molasses...	55096	C. H. Silcox, Lakeview station, Vancouver.	3 tins	45	Penick & Ford, New Orleans, Lo.	.....
" 30	" ...	55097	Dukes Grocery, 299 Hastings st. E., Vancouver.	3 "	45	Ramsay Bros. & Co. Ltd., Vancouver.	.....
" 30	" ...	55098	Efford Bros., 246 Broadway st. E , Vancouver.	3 "	40	Kelly Confection Co. Ltd., Vancouver.	.....
" 30	" ...	55099	Cochrane & Elliott, 657 5th Ave. E., Vancouver.	3 "	45	Crosby Molasses Co. Ltd., St. John, N.B.	.....
" 31	" ...	55100	Gardiner & Davy, Richard & Smyth sts., Vancouver	3 "	25	Oelerich & Berry Co., New Orleans, Lo.	.....
						DISTRICT OF VICTORIA—	
Nov. 5	Molasses...	62005	The Windsor Grocery Co. Ltd., 817 Govt. street, Victoria.	3 tins	60	Dominion Molasses Co. Ltd., Halifax	.....
" 6	" ...	62007	The West End Grocery Co. Ltd., 1002 Govt. st., Victoria.	3 "	60	Imperial Syrup Co. Ltd., Vancouver	.....
" 9	" ...	62014	Copas & Young, Broad & Fort sts., Victoria.	3 "	40	Kelly Confection , Co. Ltd., Vancouver.	.....
" 10	" ...	62020	Dixi H. Ross & Co., 1317 Govt. st., Victoria.	3 "	75	Imperial Syrup Co. Ltd., Vancouver.	.....
" 11	" ...	62027	H. O. Kirkham Co. Ltd., 741 Fort st., Victoria.	2 lbs.	25	Crosby Molasses Co. Ltd., St. John, N.B.	.....

MOLASSES.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis. Water.	Solids.	Reducing Sugar.	Sucrose.	Total Sugar.	Ash.	Organic matter other than sugar.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
A. W. MARKLEY, INSPECTOR.									
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		
"Ginger Bread" Brand choice West Indies molasses.	25·91	74·09	26·92	20·08	47·00	6·80	20·29	52034	Ash too high. Sucrose very low.
.....	27·76	72·24	17·68	38·84	56·52	3·80	11·92	52035	Sucrose low.
"Ginger Bread" Brand....	25·16	74·84	26·92	21·80	48·72	6·20	19·92	52036	Ash too high. Sucrose very low.
"Dirmolco," highest grade	24·16	75·84	23·88	36·68	60·56	2·46	12·82	52037	Sucrose low.
"Ginger Bread" Brand....	21·81	78·19	24·48	26·20	50·68	9·74	17·77	52038	Ash too high. Sucrose low.
THOS. PARKER, INSPECTOR.									
"Chef".....	26·81	73·19	25·60	30·24	55·84	6·60	26·75	61704	Ash too high. Sucrose low.
"New Orleans".....	21·33	78·67	23·12	32·20	55·32	6·40	16·95	61705	" "
"Domolco".....	22·03	77·97	11·40	54·32	65·72	4·46	7·79	61713	
.....	21·33	78·67	23·52	33·36	56·88	1·56	20·23	61721	Sucrose low.
"Avondale".....	25·03	74·97	20·48	31·60	52·08	6·18	16·71	61728	Ash too high. Sucrose low.
E. J. MORGAN, INSPECTOR.									
"Aunt Dinah" Brand, pure New Orleans molasses. Contains sulphur dioxide	23·31	76·69	23·76	34·52	58·28	7·34	11·07	55096	Sulphurous acid declared on label. Ash too high, sucrose low.
.....	22·16	77·84	22·06	31·80	53·80	9·32	14·72	55097	Ash too high. Sucrose low.
Pure Barbados	26·66	73·34	16·40	41·40	57·80	3·28	12·26	55098	
"Family" Brand, choice New Orleans molasses.	23·86	76·04	13·60	31·60	45·20	8·30	22·54	55099	Ash too high. Sucrose low.
"Red Hen" Brand, Louisiana molasses. Contains sulphur dioxide.	23·86	76·04	26·36	28·88	55·24	7·32	13·48	55100	Sulphurous acid declared on label. Ash too high, sucrose low.
D. O'SULLIVAN, INSPECTOR.									
"Domolco" Brand	19·03	80·97	25·60	34·72	60·32	1·96	18·68	62005	Sucrose low.
"Kitchen" Brand	20·48	79·52	25·04	32·20	57·24	8·64	13·64	62007	Ash too high. Sucrose low.
"Black Strap" Brand.....	23·28	76·72	26·00	28·32	54·32	4·88	17·52	62014	Sucrose low.
"Kitchen" Brand	26·13	73·87	22·76	29·84	52·60	6·40	14·87	62020	Ash too high. Sucrose low.
"Household" Brand	22·28	77·72	25·40	35·68	61·08	6·46	10·18	62027	" "

APPENDIX D.

BULLETIN No. 313—VINEGAR.

OTTAWA, May 5, 1915.

J. U. VINCENT, Esq.,
Deputy Minister Inland Revenue.

SIR,—I beg to hand you a report concerning two hundred and forty-five (245) samples purchased as Vinegar, in October, November and December of last year.

Our last extended inspection of vinegar was made in 1911, and is reported in Bulletin No. 235.

Vinegar is defined, under the Adulteration Act as "A more or less coloured liquid, consisting essentially of impure dilute acetic acid, obtained by the oxidation of wine, beer, cider, or other alcoholic liquid." It will be understood that the word *impure*, used in this connection, has regard to the presence of matters *other than* acetic acid not objectionable or undesirable, but, in fact, quite the contrary.

Under section 26 of the Act, standards and certain limiting values for different kinds of vinegar were established by Order in Council of December 19, 1913.

No better illustration of the changes which common usage brings about in the signification of words could be quoted than that afforded by the word vinegar. Etymologically it means soured wine; and it was at first employed with definite reference to that article. The souring of wine is due to the conversion of alcohol into acetic acid; and it was soon found that dilute solutions of alcool, such as malt mashes, fermented fruit juices, hard cider, fermented raspberry juice, etc., could turn sour, and the resultant product was recognized as vinegar, but distinguished as malt vinegar, raspberry vinegar, cider vinegar, etc. Then, it was discovered that distilled spirit could be diluted to proper strength and made to undergo the acetic acid fermentation, whereby so-called, spirit vinegar was produced. Finally, since the presence of acetic acid was found to be the chief character, it came about that diluted acetic acid from whatever source produced, was made to do duty as vinegar; either *per se*, or by addition to a fermentation product too low in acid strength. The public is therefore offered the following articles under the name vinegar:—

1. Soured (acetified) white wine.
2. " " red wine.
3. " " fermented malt mash.
4. " " " cider.
5. " " " other fruit juices.
6. " " dilute spirits.
7. Diluted acetic acid.

The first six articles named are distinguished from the last (7th) by the fact that the acetic acid which they contain has been produced by fermentation (*acetous*) in the liquid itself; they are properly described as a class, by the term "fermented." The sixth on the list is sometimes called distilled vinegar since it is made from a distilled spirit. This does not mean that the vinegar itself has been distilled. The last named article is not legally recognized as a vinegar. It may be sold as artificial

vinegar, imitation vinegar; vinegar substitute, or acetar. While it possesses the sourness of true vinegar, it does not possess the special flavour which characterizes the various kinds of true vinegar. The flavour referred to is due to the fact that when fermentation to produce acetic acid occurs in a dilute alcoholic liquid, small amounts of other substances are produced at the same time. These so-called congeners impart flavour to the vinegar, and this flavour is different for each particular source. For this reason, vinegars from certain sources are much in favour with the public; those made from white wine, from malt mash, from cider, and from spirits of wine are most in demand. A solution of pure acetic acid in water has no particular flavour, and is not entitled to be called a vinegar; although a very good substitute for vinegar may be manufactured from acetic acid, by adding suitable flavouring materials. Of course, the acetic acid employed in making such a surrogate vinegar, must be quite pure.

It will readily be conceded that vinegar should be both bought and sold under a name which correctly describes it. A customer who demands vinegar, has no ground of complaint against the dealer who supplies him with any one of the first six varieties listed above. But if he asks for malt vinegar he is defrauded if given a vinegar which is not actually made from malt; and so of the other kinds. The vinegar which dominates the market in any particular country, usually corresponds to the producing material most abundant and therefore most readily available in that country. Thus, wine vinegar is most popular in France, malt vinegar in England, cider vinegar in the United States of America, and spirit vinegar in Canada. But, in Canada, we find a great demand for malt and cider vinegars, and a very wide spread demand for white wine vinegar.

The wide demand for this last named vinegar in Canada led to very extensive use of the name white wine vinegar, for an article which was not made from grapes at all, but was really a spirit vinegar. If it were generally understood that white wine vinegar as sold in Canada was a spirit vinegar, the misapplication of the name would in reality be no worse than that involved in applying the term Vinegar (*vin* = wine; *aigre* = sour) to a product which is not produced from wine, as in the case of malt and cider Vinegars. But, in the first place, spirit Vinegar, is a very desirable form of vinegar, and is entitled to its own name; again Wine Vinegar is already produced to some extent in Canada, and is imported from wine-producing countries, and both maker and importer have a right to object to competition with a surrogate wine vinegar. For these reasons it must be held that a spirit vinegar, offered as a white wine vinegar, is a case of fraud, and constitutes legal adulteration under Section 3 (*d*) of the Act which says:—

"Food shall be deemed to be adulterated within the meaning of this Act;
(*d*) if it is an imitation of, or is sold under the name of another article."

For the information of those interested, the Order in Council which defines standards for Vinegar, is reproduced.

42
FOOD.

G. 1096
10,000

DEPARTMENT OF INLAND REVENUE.

OTTAWA, December 29, 1913.

MEMO.—

Under authority of an Order of His Royal Highness the Governor General in Council, bearing date the 19th day of December, 1913, and in virtue of the Provisions of the 26th Section of the ADULTERATION ACT, the following Standards of quality have been established for "*Vinegar:*"—

Vinegar Standards.

1.—Vinegar is a more or less coloured liquid, consisting essentially of impure, dilute acetic acid, obtained by the oxidation of wine, beer, cider, or other alcoholic liquid.

2.—The term Acetic Acid in the above and in the following clauses is to be understood to mean Acetic anhydride, $C_4H_6O_3$ molecular weight=102; equivalent=51.

One cubic centimeter of normal soda neutralizes 0·051 gramme of Acetic Acid. Hence, the number of cubic centimeters of normal soda required to neutralize 100 grammes of Vinegar, when multiplied by 0·051 gives the percentage weight of Acetic Acid contained in the Vinegar.

When the Vinegar is measured instead of being weighed the number of cubic centimeters of normal soda required to neutralize 100cc of the Vinegar, multiplied by 0·051 gives the percentage weight of acetic acid in 100 volumes of the Vinegar and is stated as percentage of weight in volume.

3.—Vinegar shall contain not less than three and one-half (3·5) per cent; and not more than ten and one-half (10·5) per cent of Acetic Acid.

4.—Wine Vinegar is vinegar made by the alcoholic and subsequent acetous fermentation of the juice of grapes.

5.—Spirit Vinegar; Alcohol Vinegar; Grain Vinegar is vinegar made by the acetous fermentation of diluted distilled alcohol.

6.—Malt Vinegar is vinegar made by the alcoholic and subsequent acetous fermentation, without distillation, of an infusion of Malt, with or without the addition of other cereals. It is dextrorotatory, and contains in 100cc not less than 1·8 grammes of solids, and not less than 0·2 gramme ash.

7.—Cider Vinegar, Apple Vinegar, is vinegar made by the alcoholic and subsequent acetous fermentation of the juice of apples. It is laevo-rotatory and contains in 100cc not less than 1·6 grammes of apple solids, of which not more than fifty (50) p.c. is reducing sugars; and not less than 0·25 gramme of apple ash. The water soluble ash from 100cc contains not less than ten milligrammes of phosphoric acid (P_2O_5) and requires not less than 30cc of deci-normal acid to neutralize its alkalinity. 100cc of the vinegar contains not less than 0·15 gramme of glycerine.

8.—Vinegar may be made by the acetous fermentation of dilute alcoholic liquids whose alcohol may have had its origin in the fermentation of fruit sugars of various kinds, or of ordinary sugar. Such vinegar should bear distinctive names, indicating the source of the saccharine matter.

9.—Blended Vinegar is made by mixing two or more of the above varieties of vinegar.

10.—Artificial Vinegar; Imitation Vinegar; Vinegar Substitute; Acetar, etc., are solutions of pure Acetic Acid within the limits of strength of vinegar, which acid is not wholly the product of alcoholic and subsequent acetous fermentation.

11.—Concentrated Vinegar, Vinegar Essence, is a liquid containing more than ten and one-half (10·5) p.c. of acetic acid, whose acetic acid is entirely the product of the acetous fermentation of alcohol.

12.—Concentrated Artificial Vinegar, or Concentrated Imitation Vinegar or Imitation Vinegar Essence is a liquid containing more than ten and one-half (10·5) p.c. Acetic Acid, such acetic acid being in whole or in part derived from other sources than the acetous fermentation of alcohol.

13.—Concentrated Vinegar, Vinegar Essence and Concentrated Artificial Vinegar, etc., as defined in Sections 11 and 12, shall not be offered for sale when the acetic acid content is above twenty five (25) per cent, unless labelled in such a way as to

show plainly that the article is poisonous unless diluted with at least an equal amount of water.

The Standards above defined take effect on the 28th day of January, 1914.

Under the Provisions of Section 255 of Chapter 51, Revised Statutes of Canada, 1906, "An Act Respecting The Inland Revenue," manufacturers of vinegar made exclusively from Malt, may continue to receive remission of duty on the Malt used in the manufacture of Vinegar, provided no other Cereal is used.

If any other Cereal is employed the refund cannot be made.

This provision will remain in existence until the Section of The Inland Revenue Act, above referred to, has been amended.

WM. HIMSWORTH,
Deputy Minister.

The present report deals with two hundred and forty-five (245) samples of vinegar, purchased under the following names:—

	Samples.
Malt Vinegars	70
Cider Vinegars	28
White Wine Vinegars	47
Various Vinegars	100
Total	245

Their analysis shows that 47 out of 70 malt vinegars are true to name; 22 out of 28 Cider Vinegars are also true to name.

Forty-one (41) samples out of forty-seven (47) sold as White Wine Vinegars, are not Wine Vinegars at all. They are chiefly Spirit Vinegars, and should have been sold as such. As already noted, the so long established custom of selling Spirit Vinegar under the name of *White Wine* Vinegar, has proved too strong to be corrected in the interval of time (somewhat less than a year) between the publication of Departmental Standards, and the inspection now reported.

It has not been the usual policy of this Department to penalize vendors of foods (where no injury to public health was involved) until the lapse of at least one year after the adoption of standards. For this reason I would respectfully advise publication of this report rather as a criticism and a warning to manufacturers and dealers. Inspection of Vinegars will be made continuously from this date; and dealers and manufacturers cannot plead insufficient notification if, on future occasions they are dealt with strictly in accordance with the terms of the Act.

This recommendation to leniency has reference only to those samples of Spirit Vinegar which have been supplied under the incorrect name of Wine Vinegar; and is made in recognition of the long established, but misleading, custom of the trade; a custom which is made illegal under the Order in Council above quoted.

Where surrogates for Malt Vinegar or Cider Vinegar are offered, no such excuse can be urged. Both Malt and Cider Vinegars have long been manufactured and sold under their proper names; and no valid excuse can be made for selling as a Malt Vinegar an article which is not made from malt, or as a Cider Vinegar, an article which is not made from cider. Twenty-three (23) samples sold as Malt Vinegar, are found to be adulterated under the Act, in the sense that they are not made from malt.

Five (5) samples sold as Cider Vinegar are found not to comply with the standards for this article, and are therefore declared adulterated.

I beg to recommend publication of this report as Bulletin No. 313.

I have the honour to be, sir,
Your obedient servant,

A. McGILL.
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.
				Quantity.	Cents	Manufacturer.	Furnisher.	
			DISTRICT OF NOVA SCOTIA—					
1914.								
Dec. 30	Vinegar..	54220	John Tobin & Co, Halifax, N.S.	3 pts..	25	Purnells Co., Bristol, Eng.	Mfrs.....	Malt.....
1915.								
Jan. 11	" ..	54221	Bauld Bros., Ltd., Halifax, N.S.	3 qts..	46	Holbrook Co., London, Eng.	"	" ....
" 11	" ..	54223	Dillon Bros., Halifax.	3 pts..	23	Wilson, Lytle & Badgerow & Co. Toronto, Ont.	....	" .....
" 11	" ..	54224	Cahill & Co., Halifax	3 " .	20	McCready & Sons, St. John, N.B.	.....	" .....
			DISTRICT OF NOVA SCOTIA—					
1914.								
Dec. 5	Vinegar..	65807	The 2 Barkers, Ltd., New Glasgow, N.S.	3 pts..	25	Holbrook & Co., London, Eng.	Mfrs..... ...	Labelled Pure Malt
			DISTRICT OF PRINCE EDWARD ISLAND—					
Oct. 24	Vinegar..	60126	Beer & Goff, Charlottetown, P.E.I.	3 pts..	30	Holbrook, London, Eng.	... .	Malt.....
" 24	" ..	60129	Stewart & Sons, Charlottetown, P.E.I.	3 bots.	60	Crosse & Blackwell, London, Eng.	.....	" .....
" 24	" ..	60130	" "	3 " .	60	Purnells, Bristol, Eng.	.....	" .....
			DISTRICT OF NEW BRUNSWICK—					
Nov. 10	Vinegar..	59601	Walter Gilbert, St. John, N.B.	3 bots.	75	Crosse & Blackwell, London, Eng.	.. ..	Malt.....
			DISTRICT OF QUEBEC CITY—					
Nov. 2	Vinegar..	56300	O. Lacroix, 19 Rue St. Joseph, Quebec.	3 pts..	60	Holbrook & Co., London.	J. B. Renaud & Cie.	Malt.....
" 2	" ..	60701	" "	3 " .	70	Heinz, Pittsburg, Pa.	"	" .....
" 4	" ..	60705	A. Grenier, 94 Rue St. Jean, Quebec.	3 " .	50	Lazenby & Son.	Mfrs..... ...	" .....

SESSIONAL PAPER No. 14

VINEGAR (MALT.)

Results of Analysis.													
Grams. per 100cc.					Phosphates P_2O_5 Mgms. per 100 cc.								
Acidity as Acetic.	Total Solids.	Ash.	Soluble Ash.	Alkalinity of Soluble Ash cc N/10 acid per 100 cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate ppte.	Polarization.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH, INSPECTOR.												
4·31	3·961	0·823	....	.....	.....	....	.....	.....	copious	+ 2 6	54220	Meets standard.
4·67	2·815	0·322	.....	.....	.....	.....	.....	.....	"	+ 3 5	54221	"
3·93	2·195	0·263	.....	.. .	.....	. ..	.....	.....	"	+ 1 5	54223	"
4·23	0 740	0·068	.....	10·7	2·52	.....	.....	.... .	medium	− 0 9	54224	Not malt vinegar Adulterated.
W. A. PETIPAS, TEMP. INSPECTOR.												
4·27	3·89	0·595	...	. .	....	.	trace ...	trace ..	copious	...	65807	Meets standard.
WM. A. WEEKS, INSPECTOR.												
4 68	3 08	0 315	. .	10·8	32 0	...	trace .	copious	copious	. .	60126	Meets standard
4 52	3 37	0 270	.	14 4	46 8	.	"	trace	heavy	. .	60129	"
4 17	2 59	0 285	....	6 0	trace	..	copious	medium	copious	.	60130	"
JNO. C. FERGUSON, INSPECTOR.												
5 00	1 93	0 28	.	4 8	trace		medium	heavy	copious	.	68801	Meets standard
F. X. W. E. BELAND, INSPECTOR.												
4 37	2 87	0 242	0 180	6 18	trace	55 6	trace	medium	copious	.....	56[illegible]	Meets standard
4 17	2 15	0 225	0 09	9 27	25 6	54 6	—	—	—	.....	60761	"
4 67	2 93	0 28	0 12	8 24	14 7	66 2	heavy	.	.	.....	60760	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF QUEBEC PROVINCE—								
1914.								
Nov. 2	Vinegar	211	H. Giroux, St. Agathe des Monts.	3 pts.	75			Malt
" 11	"	220	Pierre Simard, St. Jerome.	3 bots.	75	Fardons Vinegar Co., Ltd.		"
" 18	"	224	Eug. Lacas, St. Jerome.	3 "	45	Purnell & Panter, Ltd.		"
Dec. 26	"	241	Waddell & Freres, St. Therese de Blainville.	3 "	75	Crosse & Blackwell.		"
Nov. 23	"	2729	Jos. Fournier, St. Thomas Montmagny	3 pts.	25			"
" 2	"	212	D. Hetu, St. Agathe des Monts.	3 "	75	Crosse & Blackwell.		"
DISTRICT OF EASTERN TOWNSHIPS—								
Nov. 24	Vinegar	63036	N. Lacroix, Sherbrooke.	3 qts.	38	Wilson, L. B. Co., Ltd., Toronto.		Malt.
" 24	"	63038	D. W. Stenson, Sherbrooke.	3 "	38			"
DISTRICT OF MONTREAL—								
Nov. 24	Vinegar	62526	I. Reindeau, 509 Lasalle Road, Verdun	3 pts.	30		Hudon Hebert, Montreal.	Malt
" 24	"	62529	R. J. Milne, 1453 Wellington st., Verlun.	3 bots.	30	Holbrook, Ltd.,		"
" 25	"	62531	Mrs. Williams, 1393 Wellington st., Verdun.	3 "	60	S. Chivers & Co., Ltd.		"
DISTRICT OF VALLEYFIELD—								
Dec. 9	Vinegar	62812	E. C. McCoy, Huntingdon.	3 pts	30			Malt (Imported.)
" 10	"	62815	Geo. Leblanc, Longueuil.	3 "	25			Malt
" 15	"	62819	The Industrial Co-Operative Society, Valleyfield.	3 "	21			"

SESSIONAL PAPER No. 14

VINEGAR (MALT.)

Results of Analysis.												
Grams. per 100 cc.					Phosphates P_2O_5 Mgms. per 100 cc.							
Acidity as Acetic.	Total Solids.	Ash.	Soluble Ash.	Alkalinity of Soluble Ash cc N/10 acid per 100 cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate ppte.	Polarization.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
N. C. CADIEUX AND T. GENDREAU, TEMP. INSPECTORS.												
4·20	1·80	0·20	.....	10·0	30·4	.....	medium	heavy	heavy	...	211	Meets standard.
4·10	2·44	0·25	0·06	3·09	22·7	81·2	"	medium	copious	...	220	"
4·15	3·60	0·64	0·42	7·72	35·3	62·8	copious.	"	large	...	224	"
4·62	1·84	0·265	0·115	9.27	16·0	63·3	trace. .	trace. . .	copious	....	241	"
4·65	0·15	0·04	0·01	3·09	none	none	" ...	" . .	"		2729	Not malt vinegar Adulterated.
4·90	2·13	0·28	.....	14·8	32·8	...	medium	heavy	copious		212	Meets standard.
J. J. COSTIGAN, ACTING INSPECTOR.												
3·65	2·07	0·16	0·075	7·21	trace	24·7	trace . .	trace	slight.		63036	Meets standard.
3·85	2·0	0·18	0·120	10·3	15·0	45·9	"	"	heavy		63038	"
D. J. KEARNEY, INSPECTOR.												
4·10	1·62	0·20	. .	5·20	25·2	. .	medium	heavy	heavy		62528	Meets standard.
5·10	2·47	0·28	. .	4·00	8·00	. .	heavy	trace	—		62529	"
4·00	2·15	0·32		10·4	34·8		trace	none	copious		62831	"
J. J. COSTIGAN, ACTING INSPECTOR.												
5·50	2·48	0·23	0·08	7·21	11·0	64·4	medium	medium	copious		62812	Meets standard.
5·20	0·22	0·04	0·015	2·06	7·0	37·7	trace	—	medium		62815	Not malt vinegar. Adulterated.
3·83	2·55	0·13	0·025	2·57	8·0	37·2	"	"	copious		62819	Meets standard.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor, Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor, Furnisher.	Inspector's Report. (Is not an expression of opinion.
DISTRICT OF OTTAWA—								
1914.								
Oct. 31	Vinegar..	63516	McLean Bros., Smith's Falls.	3 bots.	15	Wilson, Lytle, Badgerow, Ltd., Toronto.	.....	Wilson's Pure Malt
Nov. 6	" ..	63518	McDonald Bros., Ottawa.	3 "	15	.....	H. N. Bate & Sons, Ottawa	Malt.....
DISTRICT OF KINGSTON—								
Oct. 28	Vinegar..	61555	D. B. Muaary, Kingston.	1 qt.	20	Wilson, Lytle, Badgerow, Ltd, Toronto.	.....	Malt.....
DISTRICT OF TORONTO—								
Nov. 23	Vinegar..	64561	The Turner Co., Ltd., 106 Frank st., east, Toronto.	3 bots.	35	Vendors.....	.....	*Finest English Distilled Malt.*
" 24	" ..	64562	Wilson, Lytle & Badgerow Co., Ltd., 112 Duke st., Toronto.	3 "	15	"	.....	"
" 24	" ..	64563	Parsons Brown & Co., 78 Colborne st., Toronto.	3 "	25	"	.....	*Coronation Pure English Malt.*
" 25	" ..	64565	Fred. Coward, 402 Spadina ave., Toronto.	3 "	30	Holbrooks, Ltd.. Toronto.	.....	*Pure English Malt.*
" 25	" .	64566	The T. A. Lytle Co., Ltd., Sterling Road, Toronto.	3 "	23	Wilson, Lytle, Badgerow, Ltd., Toronto.	.....	"
" 25	" ..	64567	A. W. Milne, 1063 College st., Toronto	3 "	30	.....	The Ontario Importing Co., Toronto	" *Crown Brand.*
" 27	" ..	64598	W. W. Hall, 228 Westmoreland ave., Toronto.	3 "	30	Stephens & Hardy, Toronto.	.....	White Yacht Brand Original Malt, Standardized.

SESSIONAL PAPER No. 14

VINEGAR (MALT).

Results of Analysis.												
Grams. per 100cc.					Phosphates P_2O_5 Mgms. per 100cc.							
Acidity as Acetic.	Total Solids.	Ash.	Soluble Ash.	Alkalinity of Soluble Ash cc N/10 acid per 100 cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate ppte.	Polarization.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
J. A. RICKEY, INSPECTOR.												
4·03	2·21	0·17	. . .	3·2	trace	.....	heavy . .	heavy . .	heavy . .	. . .	63516	Meets standard.
3·40	2·30	0·360	. . . .	4·4	....	....	copious .	" . .	very copious.	. . .	63518	"
JAS. HOGAN, INSPECTOR.												
3·93	2·02	0·19	. . .	5·6	trace	.....	none .	none . .	heavy . .	. . .	61555	Meets standard.
H. J. DAGER, INSPECTOR.												
3·82	0·32	0·20	0·140	16·5	trace	14·0	none .	trace . .	heavy . .	. .	64561	Meets standard.
3·90	2·24	0·14	0·03	1·54	none	67·2	trace	medium	medium . .	. .	64562	"
3·98	2·65	0·305	0·15	1·54	8·0	70·1	medium	copious	copious . .	. .	64563	"
4·15	2·51	0·295	0·160	1·54	none	65·3	trace	heavy . .	" . .	. .	64565	"
3·70	2·80	0·15	0·035	2·06	"	54·6	none	trace	medium . .	. .	64566	"
3·68	3·24	0·14	0·03	1·03	"	69·1	trace	medium	" . .	. .	64567	"
2·78	0·26	0·02	0·005	2·06	"	none	none	trace	none . .	. .	64598	Not malt vinegar. Adulterated.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF HAMILTON—								
1914.								
Nov. 3	Vinegar ..	64510	McLauchlan SonsCo., Owen Sound.	3 bots.	25	Maconochie Bros., London, Eng.	.....	Brown Malt
" 6	" ..	64513	Goode & McKay, Walkerton.	3 pts.	20	Holbrooks, Ltd., Toronto.	.....	Malt... ...
" 9	" .	64514	H. W. Eaton, 447 Barton St. E., Hamilton.	3 bots.	45	The Turner Co., Ltd., Toronto.	.....	Finest English Malt Vinegar Distilled. 3 Star Quality.
DISTRICT OF MANITOBA—								
Nov. 3	Vinegar ..	61202	J. Bower & Co., Brandon.	3 pts.	20	The Dyson Co., Winnipeg.	.....	Malt.....
" 12	" ..	61205	Galloway Bros., Gladstone.	3 bots.	75	Crosse & Blackwell, London, Eng.	.....	" .....
" 12	" ..	61206	R. E. Broadfoot, Gladstone.	3 pts.	15	.....	.....	" .....
" 16	" ..	61207	Simkins Grocery Store, St. James. Man.	3 "	30	" "	.....	Red Cross Malt.
DISTRICT OF SASKATCHEWAN—								
Oct. 27	Vinegar ..	64049	Capital Grocery, Regina.	3 bots.	15	.....	.....	Malt....
" 28	" ..	64058	Manville & Co., Prince Albert.	3 "	10	.....	James Turner & Co., Hamilton.	" .....
" 30	" .	64071	F. R. Bailey & Co., Saskatoon.	3 "	15	.....	.....	" .....
" 30	" ..	64073	Jones Bros., Saskatoon.	3 pts.	45	The Dyson Co., Winnipeg.	Mfrs.	" .....
Nov. 5	" ..	64092	McLean Grocery, Moose Jaw.	3 "	45	Crosse & Blackwell, London, Eng.	Crawford & Co., Moose Jaw.	" .....

SESSIONAL PAPER No. 14

VINEGAR (MALT).

Results of Analysis.												
Grams per 100 cc.					Phosphates P_2O_5 Mgms. per 100 cc.							
Acidity as Acetic.	Total Solids.	Ash.	Soluble Ash.	Alkalinity of Soluble Ash cc N/10 acid per 100 cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate ppte.	Polarization	No. of Sample.	Remarks and Opinion of the Chief Analyst.
H. J. DAGER, ACTING INSPECTOR.												
5·02	2 31	0·12	0·03	2 06	34·3	44 9	medium	medium	copious		64510	Meets standard.
3·98	2 52	0 270	....	5·2	trace	..	none	..	..	..	64513	..
3 10	0 91	0 07	0 035	1·03	none	trace	..	trace	trace	..	64514	Not malt vinegar Adulterated
A. C. LARIVIERE, INSPECTOR.												
5 64	2·41	0 190	..	..	..	..	medium	trace	..	..	61202	Meets standard
5 20	2 00	0 27	..	12 8	36 4	..	light	medium	heavy	..	61205	..
8 26	1·40	0 06	..	..	..	..	none	..	..	..	61206	Not malt vinegar Adulterated
5 14	4 13	0 285	..	..	..	..	..	..	..	..	61207	Meets standard.
L. H. HALL, INSPECTOR.												
4 37	0 42	0 06	0 025	2 06	none	none	none	medium	trace	..	64049	Not malt vinegar, Adulterated
3 93	0 35	0 02	0 005	1 54	..	..	slight trace	slight trace	none	..	64050	.. ..
5 09	0 71	0 04	0 018	3 60	..	..	none	trace	..	..	64051	.. ..
4 92	3 09	0 2 80	0 08	2 06	..	68 1	heavy	..	copious	..	64052	Meets standard.
4 57	2 00	0 273	0 105	10 3	30 5	48 8	medium	medium	..	..	64053	..

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF ALBERTA—								
1914.								
Nov. 18	Vinegar..	52019	Pryce Jones (Canada) Ltd., Calgary.	3 bots.	90	Crosse & Blackwell, London, Eng.	.....	Pure Malt Vinegar. Free from Mineral Acids.
" 25	" ..	52024	Duncan Sampson, Camrose.	3 "	25	Pioneer Vinegar Co., Edmonton	....	Malt.....
" 25	" ..	52025	Montgomery, Bros., Wetaskiwin.	3 "	90	Holbrook & Co., London, Eng.	Campbell, Wilson & Horne, Edmonton.	Pure Malt..
DISTRICT OF ROCKY MOUNTAINS—								
Nov. 10	Vinegar..	61711	Co-operativa Italiana Association, Trail.	3 bots.	75	....	Kelly, Douglas Co., Vancouver.	Mackenzie's Malt.
" 20	" ..	61716	Merritt Dist. Indust. Co-operative Soc., Merritt.	3 "	75	.. ..	W. J. Pendray & Sons, Victoria.	Malt.. .....
" 20	" ..	61719	Armstrong's Deptl. Store, Merritt.	3 "	75	White, Cottell & Co., London, Eng.	....	" . ....
" 20	" ..	61720	" "	3 "	60	B. C. Vinegar Works, Vancouver.	....	" .... ..
" 23	" ..	61727	Hudson's Bay Co., Kamloops.	3 "	65	....	... .	" .....
DISTRICT OF VANCOUVER—								
Oct. 27	Vinegar..	55101	The Findlay Co., Stores, 3358 Commercial Drive, Vancouver.	3 bots.	75	Crosse & Blackwell, London, Eng.	....	Pure Malt..
" 27	" ..	55102	Knight Bros., 11th Ave., and Commercial Drive, Vancouver.	3 "	40	Royal Mfg. Co., Vancouver.	.....	Royal Brand Malt. The name Empress Mfg. Co., Ltd., appear on lead capsules.
27	" ..	55103	Mitchell & Cahill. 1752 Commercial Drive, Vancouver.	3 "	45	Holbrook & Co., London, Eng.	.....	Pure Malt..

SESSIONAL PAPER No. 14

VINEGAR (MALT.)

Results of Analysis.													
Grams. per 100cc.					Phosphates P_2O_5 Mgms. per 100cc.								
Acidity as Acetic.	Total Solids.	Ash.	Soluble Ash.	Alkalinity of Soluble Ash cc N/10 acid per 100 cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate ppte.	Polarization.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
A. W. R. MARKLEY, INSPECTOR.												
4·45	2·63	0·29	0·13	9·78	24·0	69·1	medium	medium	copious	.....	52019	Meets standard.
7·16	0·57	0·04	0·37	3·09	none .	none .	none ..	trace ...	none ...	....	52024	Not malt vinegar. Adulterated.
4·80	2·92	0·335	0·16	1·50	6·16	7·12	" ...	medium	medium	....	52025	Meets standard.
THOS. PARKER, INSPECTOR.												
3·50	0·39	0·005	none .	none .	none	none .	none ...	none ...	none ...	.....	61711	Not malt vinegar. Adulterated.
3·30	0·35	0·02	"	"	"	"	" ...	" ..	" ...	.....	61716	" "
4·32	2·37	2·90	0·155	7·21	16·4	46·4	heavy ..	medium	heavy	...	61719	Meets standard
3·30	0·74	0·03	0·01	2·11	none .	none .	none ..	none ...	none ..	...	61720	Not malt vinegar Adulterated.
6·71	0·75	0·08	0·030	2·66	"	14·7	" ..	medium	"	...	61727	" "
E. J. MORGAN, INSPECTOR.												
5·20	1·92	0·25	...	12·80	35·6	....	heavy ..	med ...	heavy ..	.....	55101	Meets standard
2·30	0·44	0·02	0·00	0·00	none .	none .	none ..	none ...	none ...	...	55102	Not malt vinegar Adulterated.
4·90	2·58	0·28	....	5·60	46·8	...	heavy ..	med ...	heavy ..	.....	55103	Meets standard

BULLETIN No. 313.—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF VANCOUVER—								
1914.								
Oct. 28	Vinegar ..	55107	The Main Grocery Store, 1102 Commercial Drive, Vancouver.	3 bots.	75	Grimbles, London, Eng.	... .	English Malt Guaranteed Pure.
" 29	" ..	55109	Quality Mfg. Co., 358 Broadway W., Vancouver.	3 "	45	.....	....	Malt. Bottled by Vendor.
" 29	" ..	55110	A. C. Bartig, 2441 Granville st., Vancouver.	3 "	45	....	W. J. Pendray & Sons, Ltd., Victoria.	English Malt Guaranteed Pure
Dec. 16	" ..	55152	B. C. Vinegar Works, Vancouver.	3 "	25	Vendors.....	.....	Mackenzie's Pure Malt. Made from Pure Mal
DISTRICT OF VICTORIA—								
Nov. 5	Vinegar ..	62001	The Windsor Grocery Co., 817 Govt. st., Victoria.	3 pts.	60	....	W. K. Houston & Co., Victoria.	Malt.....
" 5	" ..	62002	"	3 qts.	75	Crosse & Blackwell, London, Eng.	....	Pure Malt ..
" 6	" ..	62009	The West End Grocery Co., Ltd., 1002 Govt. st., Victoria.	3 "	45	B. C. Vinegar Works, Vancouver.	.....	Pure Canadian Malt
" 6	" ..	62010	"	3 pts.	30	.....	R. P. Rithet & Co., Ltd., Victoria.	Malt..... ..
" 10	" ..	62018	Dixie H. Ross, 1317 Govt. st., Victoria.	3 "	30	. ...	W. J. Pendray & Sons, Ltd., Victoria.	" .....
" 11	" ..	62023	Acton Bros., 1317 Douglas st., Victoria.	3 pts.	30	. .....	W. K. Houston & Co., Victoria.	Malt.....
" 11	" ..	62024	"	3 qts.	75	Holbrook & Co., London, Eng.	....	" .....

SESSIONAL PAPER No. 14

VINEGAR (MALT).

Results of Analysis.													
Grams. per 100 cc.					Phosphates P_2O_5 Mgms. per 100 cc.								
Acidity as Acetic.	Total Solids.	Ash.	Soluble Ash.	Alkalinity of Soluble Ash cc N/10 acid per 100 cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate ppte.	Polarization.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
5·30	2·66	0·43	... ..	4·0	trace.	.....	heavy ..	heavy ..	heavy ..	.....	55107	Meets standard.
·50	0·40	0·03	... ..	6·0	"	.....	trace ...	" ..	none ...	.....	55109	Not malt vinegar Adulterated.
3·60	0·31	0·02	.....	2·8	" .	.....	" ...	trace ...	" ...	..	55110	"
3·10	0·40	0·01	... .	4·2	" .	.....	none ...	none .	none ...	.....	55152	"
D. O'SULLIVAN, INSPECTOR.												
3·63	0·23	0·02	·005	1·03	8·0	7·3	none ...	none .	none ...	...	62001	Not malt vinegar. Adulterated.
4·72	2·24	·220	·080	6·18	7·3	49·3	heavy ..	med . .	heavy ..	... .	62002	Meets standard.
2·80	0·83	0·02	·005	1·03	none	none .	none . .	none	none ..		62009	Not malt vinegar. Adulterated
3·80	0·36	0·03	·002	0·0	none	12·1	"	"	" ...		62010	
6·29	0·51	0·01	0·01	1·03	trace	10·2	"	"	"		62018	
7·03	0·42	0·03	·00	"	"	"	med	"	"		62023	Not malt vinegar Adulterated
4·47	2·92	·310		2·80	trace		trace	heavy	copious		62024	Meets standard

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion.
DISTRICT OF NOVA SCOTIA—								
1914.								
Dec. 29	Vinegar .	54216	Wm. Moore, Halifax, N.S.	3 qts.	30	N. H. Groves, Bridgetown, N.S.	Mfr.....	Apple Cider.
" 29	" ..	54217	J. L. Wilson, "	3 pts.	24	Valley Cyder Co,, Bridgetown, N.S.	"	"
" 30	" .	54218	John Tobin & Co., Halifax, N.S.	3 "	20	" "	"	Cider.....
DISTRICT OF PRINCE EDWARD ISLAND—								
Oct. 29	Vinegar ..	60133	W. W. Walker, Ch. Town, P.E.I.	2 pts.	15	.....	R. F. Maddigan & Co., Charlottetown, P.E.I.	Cider.....
" 30	" ..	60134	R. F. Maddigan & Co., Charlottetown, P.E.I.	3 bots.	20	.....	Valley Cider Co., Bridgetown, N.S.	" .....
DISTRICT OF NEW BRUNSWICK—								
Nov. 13	Vinegar ..	59603	W. C. Broadbent, St. John, N.B.	3 pts	15	....	....	XX Cider..
" 17	" ..	59604	J. Rankin Brown, Woodstock, N.B.	3 "	15	W. M. Graves, Co., Bridgetown, N.S.	Geo. E. Barbour Co. Ltd. St. John, N.B.	Cider. . ..
Dec. 8	" ..	59608	King Asbell & Co., Sussex, N.B.	3 "	15	M. W. Graves & Co, Bridgetown, N.S.	....	" .....
DISTRICT OF OTTAWA—								
Oct. 24	Vinegar ..	63513	J. L. P. Saunders, Kemptville.	3 bots.	10	Queen City Vinegar Co., Toronto.	.....	XX Cider ..
" 31	" ..	63515	A. J. Macdonald, Smiths Falls.	3 "	10	Wilson Lytle & Badgerow Ltd. Toronto.	.....	XXX Cider.

SESSIONAL PAPER No. 14

VINEGAR (CIDER).

Results of Analysis.													
Grams per 100cc.					Phosphates P_2O_5 Mgms. per 100 cc.								
Acidity as Acetic.	Total Solids.	Ash.	Soluble Ash.	Alkalinity of Soluble Ash cc N/10 acid per 100 cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate ppte.	Polarization.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH, INSPECTOR.												
4·08	2·102	0·348	0·316	42·0	7·44	....	....	....	Med....	−0·8	54216	Meets standard.
2·83	1·696	0·335	0·303	42·4	8·03	.....	.....	....	"	−0·8	54217	" except in acid strength. Pass.
2·49	1·976	0·250	0·210	30·6	3·17	.....	.....	....	"	−0·6	54218	Meets standard except in acid strength and phosphates. Pass.
WM. A. WEEKS, INSPECTOR.												
3·00	1·760	0·230	.....	16·4	10·8	....	Trace.	Trace.	Copious.	−0·8	60133	Meets standard except in acid strength. Pass.
3·40	1·690	0·210	.....	17·6	10·0	....	"	"	"	−0·2	60134	Meets standard.
JNO. C. FERGUSON, INSPECTOR.												
3·40	1·780	0·160	....	5·6	Trace	....	None.	None.	None.	−1·6	59503	Not cider vinegar. Adulterated.
3·80	2·03	0·280	.....	36·0	9·5	....	"	Slight trace	Copious.	....	59504	Meets standard.
3·58	1·65	0·30	....	40·4	12·4	....	"	....	"	−0·4	59505	"
J. A. RICKEY, INSPECTOR.												
3·30	1·72	0·14	....	20·4	11·6	....	Trace.	Trace.	Copious.	−1·2	60118	Meets standard except ash. Pass.
3·58	3·72	0·20	....	22·4	5·6	....	"	"	"	....	60119	Meets Standard.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF OTTAWA—								
1914.								
Nov. 5	Vinegar..	63517	Scott Bros., Hull....	3 bots.	10	Lion Vinegar Co. Ltd., Montreal.	. .. .	Cider. .....
DISTRICT OF KINGSTON—								
Oct. 28	Vinegar..	61556	R. W. Marshall, Kingston.	1 qt..	10	.....	Fenwick Hendry Co., Kingston.	Cider..... .
" 28	" ..	61558	J. R. B. Gage, Kingston.	1 "	10	.....	A Maclean, Kingston.	" .....
" 29	" ..	61561	C. R. McLeod, "	1 "	10	D. B. Murray, Kingston.	.....	" .....
" 29	" ..	61564	W. J. Lee, Kingston	1 "	10	" "	.....	" .....
DISTRICT OF TORONTO—								
Nov. 16	Vinegar..	64559	Stephens Store Ltd., Collingwood.	3 pts.	10	....	Long Bros., Collingwood.	Queen City XXX Cider
DISTRICT OF HAMILTON—								
Nov. 2	Vinegar..	64507	J. McKim, Orangeville.	3 pts.	15	Port Dover Evap. Co., Port Dover.	.....	Cider . ..
" 3	" ..	64509	J. A. Armour, Owen Sound.	3 "	15	Taylor & Pringle Co., Ltd., Owen Sound.	....	" .....
" 10	" ..	64516	P. & R. Laing, Dundas.	1 qt..	10	Vendors	. ...	" .....
DISTRICT OF WINDSOR—								
Nov. 3	Vinegar..	63935	A. A. Rapson, Woodstock, Ont.	1 qt..	15	S. Allen & Co., Norwich.	.....	Cider .. .
" 3	" ..	63941	Lewis & Son, Woodstock, Ont.	1 " ..	10	Wilson, Lytle, Badgerow, Ltd., Toronto.	.....	" Blended

SESSIONAL PAPER No. 14

VINEGAR (CIDER).

Results of Analysis.													
Grams per 100 cc.					Phosphates P_2O_5 Mgms. per 100 cc.								
Acidity as Acetic.	Total Solids.	Ash.	Soluble Ash.	Alkalinity of Soluble Ash cc N/10 acid per 100 cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate ppte.	Polarization.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
4·03	0·26	0·03	.....	4·8	Trace.	.....	None...	None...	None...	−0·2	63517	Not cider vinegar. Adulterated.
JAS. HOGAN, INSPECTOR.												
3·83	1·35	0·18	0·09	19·2	11·2	.....	Trace...	None...	None...	−1·6	61556	Not cider vinegar. Adulterated.
4·47	1·62	0·29	0·145	24·4	9·5	.....	None...	" ...	" ...	−1·8	61558	Meets standard.
3·98	2·34	0·370	0·285	40·0	16·0	.....	Trace...	Trace...	Med. ...	−0·2	61561	"
4·82	1·87	0·23	0·180	30·8	14·0	.....	None...	None...	None...	−1·0	61564	"
H. J. DAGER, INSPECTOR.												
3·93	0·71	0·09	0·060	5·2	4·1	None.	Med....	None...	Trace.	−0·6	64559	Not cider vinegar. Adulterated.
H. J. DAGAR, ACTING INSPECTOR.												
4·07	2·43	0·210	0·175	23·6	12·0	none	medium	trace...	medium	−2·0	64507	Meets standard.
3·73	1·88	0·24	0·120	18·0	6·0	"	"	medium	"	−0·5	64509	"
4·92	2·06	0·295	0·240	30·9	trace	"	none	heavy	trace...	−2·0	64516	Meets standard, except phosphates. Pass.
JNO. TALBOT, INSPECTOR.												
3·93	3·07	0·270		35·6	10·8		none	slight trace	copius.	−1·0	63935	Meets standard
3·75	2·07	0·26	...	26·8	11·1	.....	" ...	"	medium	−0·2	63941	"

Date of Collection	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF WINDSOR—								
1914.								
Nov. 4	Vinegar ..	63946	H. M. Scott, Tillsonburg.	1 qt..	8	Port Dover Evap. Co., Port Dover.	.....	Cider .. ...
" 5	" ..	63960	O. R. Hauselman, Simcoe.	3 pts.	9	" "	.....	" .....
" 5	" ..	63961	Cruickshank Bros., Simcoe.	3 "	12	Lea Bros., Simcoe.	....	" .....
DISTRICT OF MANITOBA—								
Nov. 10	Vinegar .	61203	A. F. Higgins & Co., Carman.	3 pts.	25	The Dyson Co., Winnipeg.	... .	Cider . ....
DISTRICT OF VANCOUVER—								
Oct. 28	Vinegar ..	55104	W. D. Fowler, 1,678 Commercial Drive, Vancouver, B.C.	3 bots.	60	McLatchy Mfg. Co., Vanc., B.C.	.....	Pure Apple Cider.
" 29	" ..	55108	E. Bailey, 537 Howe Street, Vancouver, B.C.	3 "	1·05	H. J. Heinz Co., Pittsburg, Pa.	.....	Pure Cider. (Fermented.) 5 p.c. Acetic Strength.
DISTRICT OF ALBERTA—								
Nov. 27	Vinegar ..	52028	A. M. Campbell, Lacombe.	3 bots.	75	Alberta Empress Co., Ltd., Calgary.	....	Cider .....

SESSIONAL PAPER No. 14

VINEGAR (CIDER).

Results of Analysis.													
Grams per 100 cc.					Phosphates P_2O_5 Mgms. per 100 cc.								
Acidity as Acetic.	Total Solids.	Ash.	Soluble Ash.	Alkalinity of Soluble Ash cc N/10 acid per 100 cc.	Soluble.	Insoluble.	Chlorides.	Sulphates.	Lead Acetate ppte.	Polarization.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
3·20	1·17	0·27	.....	33·2	9·1	trace	trace....	slight trace.	heavy ..	−1 2	63946	Meets standard, except solids. Pass.
3·08	0·895	0·175	...	21·6	12·0	.....	none ...	"	medium	−0 2	63960	Not cider vinegar. Adulterated.
4·17	3·08	0 295	.....	33·2	16·8	.....	" ...	trace...	heavy ..	−1·4	63961	Meets standard.
A. C. LARIVIERE, INSPECEOR.												
6·00	1·40	0·105	.....	.....	..	.....	medium	trace....	.....	.....	61203	Meets standard, except ash. Pass.
E. J. MORGAN, INSPECTOR.												
4·00	1 87	0 25	...	34 8	14·5	.....	none	none	none	−1 8	55104	Meets standard.
5·50	2 10	0 32	....	42 0	9 5	.....	"	"	heavy	−1 0	55108	
A. W. R. MARKLEY, INSPECTOR.												
2·70	1 32	0 22	0 16	28·8	4 5	..	none ...	none ...	medium	−2 6	58828	Below standard. Doubtful.

BULLETIN No. 313—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1915.							
Jan. 11	Vinegar..	54222	J. D. Stewart, Halifax.....	3 qts.	25	E. S. Tracey, Halifax.	Mfr .....
" 20	" ..	54225	E. S. Tracey, Halifax.....	3 pts.	15	Vendor	.....
DISTRICT OF PRINCE EDWARD ISLAND—							
1914.							
Oct. 24	Vinegar...	60127	Beer & Goff, Charlottetown.	3 pts.	30	McCready & Sons Ltd., St. John.	....
" 24	" ..	60128	Jenkins & Sons, Charlottetown.	3 qts.	50	H. J. Heinz Co., Pittsburg.	....
DISTRICT OF NEW BRUNSWICK—							
Nov. 20	Vinegar..	59606	John McKnight, Fredericton.	3 pts.	15	Wilson, Lytle & Badgerow Co., Toronto.	.....
Dec. 10	" ..	59610	D MacLachlin, Chatham ..	3 " .	20	... .	Jones & Scofield, St. John.
DISTRICT OF QUEBEC CITY—							
Nov. 2	Vinegar...	56299	O. Lacroix, 19 Rue St. Joseph, Quebec.	3 pts.	40	T. Cessat, Bordeaux.	A. Toussaint & Cie.
" 4	" ..	60706	A. Grenier, 94 Rue St. Jean, Quebec.	3 " .	80	Lonis, Frere & Cie, Bordeaux.	Mfrs .....
" 5	" ..	60707	Cantin & Frere 271 Rue St Joseph, Quebec.	3 " .	50	Crosse & Blackwell ..	Turcotte & Frere
DISTRICT OF EASTERN TOWNSHIPS—							
Nov. 11	Vinegar...	63031	The Daly Grocery Co., Stanstead.	3 qts.	30	Canadian Vinegar Co., Montreal.	... .
23	" ..	63033	Lassonde & Frere, St. Hyacinthe.	3 " .	35	... .	Lariviere & Frere, Montreal
23	" ..	63035	Thomas Hebert, St. Hyacinthe.	3 " .	36	....	American Food Co., Montreal.

SESSIONAL PAPER No. 14

VINEGAR (WHITE WINE).

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Grams per 100cc. Acidity as Acetic.	Total Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented Vinegar.	Formic Acid. Mgms. per 100cc.	Parts per 1,000 of Total Acid.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH, INSPECTOR.										
White Wine	3·60	0·115	0·071						54222	Is not wine vinegar.
"	3·55	0·098	0·001						54225	" "
WM. A. WEEKS, INSPECTOR.										
White Wine	5·96	0·170	0·010	Med.	Trace.		None		60127	Is not wine vinegar.
"	4·37	0·130	0·020	Trace.	"				60128	" "
J. C. FERGUSON, INSPECTOR.										
White Wine	4·42	0·11	0·005	None	None	Ppt.			59670	Is not wine vinegar.
"	3·93	0·505	0·005	Trace.	"				59610	" "
F. X. W. E. BELAND, INSPECTOR.										
Wine	2·6	6·88	0·420	Trace.	Trace.				56280	Acidity too low.
"	5·49	1·63	0·184	"	Med.				60708	Genuine.
"	4·84	2·14	0·260	Med.	"				60707	"
J. J. COSTIGAN, ACTING INSPECTOR.										
White Wine	4·0	0·09	0·015	Slight trace.	None	None			63001	Is not wine vinegar.
"	4·82	0·14	0·018	"	"	"			63002	" "
"	4·82	0·150	0·030	"	"	"			63003	" "

BULLETIN No. 313—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF EASTERN TOWNSHIPS—							
1914.							
Nov. 24	Vinegar ..	63037	N. Lacroix, Sherbrooke ...	3 qts.	30	Wilson, L. B. Co., Ltd., Toronto.	. ...
" 24	" ..	63039	D. W. Stenson, Sherbrooke.	3 " .	35	....	.....
" 25	" ..	63040	Beaudry & Beauchemin, Granby.	3 " .	20	....	....
DISTRICT OF MONTREAL--							
Nov. 24	Vinegar...	62525	Beaudoin & Couture, 497 Lasalle Rd., Verdun.	3 qts.	32	Canadian Vinegar Co., Montreal.	....
" 24	" ..	62528	O. Trudeau, 1394 Wellington St., Verdun.	3 pts.	24	.....	Geo. Perry, Montreal.
" 25	" ..	62530	E. Menard, 169 Galt Ave., Verdum.	. ..	15	.....	Hudon, Hebert..
" 26	" ..	62532	G. H. Langevin, 414 St. Lawrence Boul., Montreal.	3 bots.	90	Unknown	... .
DISTRICT OF VALLEYFIELD—							
Dec. 9	Vinegar...	62811	Geo. Dixon, Huntingdon ...	3 pts.	13	.....	.. ..
" 10	" ..	62814	G. Bourdon, Longueuil	3 "	15	....	.....
" 15	" ..	62816	J. Z. Daoust, Valleyfield...	3 "	20	....	....
" 15	" ..	62817	E. Bougie, " ...	3 "	15	.....	....
" 15	" ..	62818	A. R. Biron, " ...	3 "	15	....	....
DISTRICT OF OTTAWA—							
Oct. 23	Vinegar...	63511	Estate Late Chas. Logue, Central Store, Maniwaki.	3 bots.	18	H. J. Heinz, Pittsburg.	Mfrs . . ..

SESSIONAL PAPER No. 14

VINEGAR (WHITE WINE).

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Grams per 100cc. Acidity as Acetic.	Total Solids.	Ash.	Chlorides.	Sulphates.	Iodine Test for Fermented Vinegar.	Formic Acid. Mgms. per 100cc.	Parts per 1,000 of Total Acid.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.										
White Wine	3·93	0·120	0·015	Slight trace.	Trace.	Trace.	.....	.....	63037	Is not wine vinegar.
"	5·04	0·110	0·015	"	"	"	.....	.....	63039	"
Wine	5·85	0·145	0·015	"	None.	"	....	..	63040	"
D. J. KEARNEY, INSPECTOR.										
White Wine	5·64	0·180	0·005	Trace.	None.	.....	.....	.....	62525	Is not wine vinegar.
White	4·18	0·355	0·005	"	"	.....	.....	.....	62528	"
White Wine	6·10	0·185	0·025	"	Trace.	.....	.....	.....	62530	"
"	4·94	0·805	0·085	Heavy.	"	None.	.....	.....	62532	"
J. J. COSTIGAN, ACTING INSPECTOR.										
White wine	4·0	0·9	0·002	None.	Trace.	None	Trace.	.....	62811	Is not wine vinegar.
"	5·76	0·125	0·01	"	None.	Ppt.	.....	.....	62814	"
"	3·98	0·105	0·015	Slight trace.	Trace.	Trace.	.....	.....	62816	"
"	5·66	0·17	0·01	"	Med.	Ppt.	.....	.....	62817	"
"	6·0	0·28	0·02	None.	None.	None	0·9	.....	62818	"
L. A. RICKEY, INSPECTOR.										
White wine	4·37	0·140	0·025	Trace.	None.	.....	.....	.....	63011	Is not wine vinegar.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF TORONTO—				
1914.							
Nov. 16	Vinegar...	64558	S. J. Bailey, Collingwood ..	3 pts.	10	Wilson, Lytle, Badgerow Co. Ltd., Toronto.	....
" 18	" ..	64560	W. M. Thompson, Penetang	3 bots	10	" "	....
			DISTRICT OF HAMILTON—				
Nov. 3	Vinegar...	64508	W. J. Ward, Owen Sound..	3 pts.	20	Queen City Vinegar Co. Ltd., Toronro.	....
" 4	" ..	64511	E. Irwin, Wiarton.....	3 "	10	S. Allen, Norwich..	.....
" 5	" ..	64512	H. Bruder, Hanover . ..	3 "	12	Lion Vinegar Co., Montreal.	..... .
" 9	" ..	64515	E. M. Precious, 409 Barton st. E., Hamilton.	1 qt..	10	S. Allen, Norwich...	....
			DISTRICT OF WINDSOR—				
Nov. 3	Vinegar...	63933	John Scott & Co., Woodstock.	1 qt..	10	Wilson, Lytle. ..	....
" 3	" ..	63936	Wm. Buggs & Son, Woodstock.	3 pts.	15	.. ..	Grocers Ltd., Toronto.
" 4	" ..	63951	F. H. Simpkins, Tillsonburg	3 jars.	15	Heinz Pickling Co..	....
" 5	" ..	63958	R. Edwards, Simcoe.....	3 pts	12	S. Allen, Norwich..	....
" 5	" .	63962	L. F. Aiken, "	3 "	15	" " ..	....
			DISTRICT OF MANITOBA -				
Nov. 3	Vinegar...	61201	Wm. Muir, Brandon. .. .	3 pts.	30	Wilson, Lytle.. .. .	.....
			DISTRICT OF SASKATCHEWAN—				
Oct. 28	Vinegar. .	64054	Agnews Ltd., Prince Albert	3Bots.	15	....	A. McDonald Co
Nov. 3	" ..	64083	W. G. Dey, Pense.....	3 "	15	The Dyson Co., Winnipeg.	Mfrs.... .....

SESSIONAL PAPER No. 14

VINEGAR (WHITE WINE).

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.									No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Grams per 100cc.						Formic Acid.				
	Acidity of Acetic.	Total Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented Vinegar.	Mgms. per 100cc.	Parts per 1,000 of Total Acid.			
H. J. DAGER, INSPECTOR.											
White wine	3·73	0·260	0·015	None	None					64558	Is not wine vinegar.
"	3·55	0·185	0·01	Slight trace.	None					64560	" "
H. J. DAGER, ACTING INSPECTOR.											
White wine	4·32	0·175	0·045	Trace.	None					64508	Is not wine vinegar.
"	3·4	0·440	0·030	"	"					64511	" "
"	4·18	0·315	0·015	"						64512	" "
"	4·64	0·265	0·035		Trace.					64515	" "
JOHN TALBOT, INSPECTOR.											
Wilson's XXX white wine.	4·72	0·310	0·065	Trace.	None					63935	Is not wine vinegar.
White wine	2·63	0·160	0·030	"						63936	
"	4·87	0·540	0·050	None						63951	
"	4·52	0·305	0·055	Trace.						63958	
"	4·17	0·180	0·040	None	"					63962	
A. C. LARIVIERE, INSPECTOR											
White wine	5·72	0·150	0·025	Trace	Med					64201	Is not wine vinegar.
L. H. HALL, INSPECTOR.											
White Wine (spirit)	4·23	0·430	0·060	med	none					64084	Is not Wine Vinegar.
"	5·90	0·80	0·045		trace					64085	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Add ess of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF ALBERTA—							
1914.							
Nov. 23	Vinegar...	52023	R. B. Price, Camrose.....	3Bots.	75	G. F. & J. Galt Co., Ltd., Calgary.	.. ..
DISTRICT OF ROCKY MOUNTAINS—							
Nov. 10	Vinegar,..	61709	E. W. Hazelwood, Trail....	3Bots.	60	Empress Mfg. Co,, Vancouver.	.....
" 20	" ..	61717	Merritt & Dist., Indust. Cook Soc'y., Merritt.	3 "	60	W. J. Pendray & Sons, Victoria.	... .
" 20	" ..	61718	Merritt Mercantile, .Co., Merritt.	3 "	75	B. C. Vingar Works, Vancouver.	....
DISTRICT OF VANCOUVER—							
Oct. 28	Vinegar...	55105	F. Lyons, 1609 Commercial Dr., Vancouver.	3Bots.	45	B. C. Vingar Works, Vancouver.	....
Dec. 16	" ..	55151	B.C. Vingar Works, Vancouver.	3 "	25	Vendors.....	.....
DISTRICT OF VICTORIA—							
Nov. 9	Vinegar...	62011	Copas & Young, Broad & Sts., Victoria.	3 Pts.	30	.. ..	W. K. Houston & Co., Victoria.
" 11	" ..	62028	H. O. Kirkham Co., Ltd., 741 Fort St., Vancouver.	3 "	30	Unknown.....	Unknown .....

SESSIONAL PAPER No. 14

VINEGAR (WHITE WINE).

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst
	Grains per 100cc.						Formic Acid.			
	Acidity as Acetic.	Total Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented Vinger.	Mgms. per 100cc.	Parts per 1,000 of Total Acid Acid.		
A. W. R. MARKLEY, INSPECTOR.										
Perfect Jem, Pure White Wine.	4·70	0·46	0·08	heavy	heavy	.....	trace	..	52023	Is not Wine Vinegar
THOS. PARKER, INSPECTOR.										
White Wine.....	3·5	·120	·010	none	none	none	none	...	61709	Is not Wine Vinegar
" "	3·5	·125	·010	"	"	"	trace	.	61717	" "
" " ...	3·2	·105	·008	.	"	.	"	..	61718	" "
E. J. MORGAN, INSPECTOR.										
Pure White Wine warranted x x x, bottled by vendor.	4·17	·14	035	none	none	ppt.	trace	..	55105	Is not Wine Vinegar
MacKenzie's Pure White Wine made from Pure grains.	3·60	07	·001	"	"	"	none	...	55151	" "
D. O. SULLIVAN, INSPECTOR.										
White Wine..	3·73	10	005	none	none	ppt.	.....	.....	62011	Is not Wine Vinegar
" ...	5·69	165	020	trace	...	none	.....	.....	62029	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1914.							
Dec. 30	Vinegar..	54219	John Tobin & Co., Halifax.	3 pts.	20	Heinz Co., Pittsburg	Mfr.....
DISTRICT OF PRINCE EDWARD ISLAND—							
Oct. 27	Vinegar...	60131	Coffin & Co., Charlottetown.	3 pts.	18	McCready & Son., Ltd., St. John.	....
" 28	" ...	60132	R. Mutch & Co., Charlottetown.	3 bots.	15	Wilson, Lytle, Badgerow Co., Ltd., Toronto.	.....
" 30	" ...	60135	Carvell Bros., Charlottetown.	3 "	15	McIntyre Vinegar Works, St. John.	..... .
DISTRICT OF NEW BRUNSWICK—							
Nov. 13	Vinegar..	59602	T. McCready & Sons, Ltd., St John.	3 pts.	15	Vendors.....	....
" 19	" ...	59605	B. Beveridge, Andover. . .	3 "	25	McIntyre's Bonded Vinegar Factory No. 2, St. John.	Jones, Scofield, St. John.
" 26	" ...	59607	Hill Bros., St. Stephen.....	3 "	15	McCready & Son, Ltd., St. John.	....
Dec. 9	" ...	59609	Mrs. P. White, Moncton...	3 "	15	" "	Read & Co., Moncton.
DISTRICT OF QUEBEC CITY—							
Nov. 2	Vinegar..	60702	O. Lacroix, 19 Rue St. Joseph, Quebec.	3 pts.	30	St. Lawrence Co., Quebec.	Mfrs.....
" 2	" ...	60703	" "	3 "	30	" "	" .....
" 2	" ...	60704	" "	3 "	105	E.D. Smith, Winona, Ont.	Turcotte & Frere
" 5	" ...	60708	J. H. Turcotte, 92 Rue Caron, Quebec.	3 "	30	St. Lawrence Co., Quebec.	Mfrs ....
DISTRICT OF QUEBEC PROVINCE—							
Nov. 4	Vinegar..	56401	Alphonse Roy, St. Angele..	3 pts.	20	....	Turcotte & Frere
" 4	" ...	56404	Dame Hector Hudon, St. Angele.	3 "	20	Unknown	Unknown .....

SESSIONAL PAPER No. 14

VINEGAR (OTHER THAN WHITE WINE, MALT AND CIDER).

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst
	Grams per 100cc.						Formic Acid.			
	Acidity as Acetic.	Total Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented Vinegar.	Mgms. per 100cc.	Parts in 1,000 of Total Acid.		
R. J. WAUGH, INSPECTOR.										
Crystal White....	4·02	0·138	0·030	.. ...	... .	Ppt ..	.....	..	54219	Genuine.
WILLIAM WEEKS, INSPECTOR.										
Spirit...	5·91	0·145	0·015	None...	None...	....	.....	.....	60131	Genuine.
"	3·63	0·125	0·015	" ...	" ...	....	...	.....	60132	"
"	3·67	0·260	0·015	" ..	" ...	.....	....	...	60135	"
JOHN C. FERGUSON, INSPECTOR.										
Spirit....	3·93	·130	·010	None...	Trace	.....	.....	.....	59602	Genuine.
"	3·62	·350	·015	Heavy.	"	trace..	None		59605	"
Distilled Spirit Vinegar, sherry coloured.	4·07	·187	·007	Trace ..	"	Heavy	..		59607	Coloured.
Spirit White	3·93	·125	·002	None	" ...	Ppt ..			59608	Genuine.
F. X. W. E. BELAND, INSPECTOR.										
Proof	6·00	0·380	0·015	Trace	Trace	.....	.....	.....	60702	Genuine.
"	5·62	0·160	0·017	None	None	.....	.....		60703	"
Raspberry Puro .							Raspberry vinegar		60701	Raspberry vinegar Genuine.
....	7·06	0·435	0·020	None...	None...	.....	.....	.....	60708	Genuine.
ALF. PELLETIER, N. CADIEUX, O. BROCHU, F. GENDREAU, TEMPORARY INSPECTORS										
....	3·18	·260	·01	Trace	None	.....	.....	None	56101	Genuine.
....	4·47	·590	·035	"	Trace	.....	.....	.....	56104	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF QUEBEC PROVINCE—				
1914.							
Nov. 6	Vinegar ..	56409	Philipe Bourgoin, Price....	3 pts.	20	....	Langlois & Paradis, Quebec.
" 6	" ..	56410	Phileas Cote, St. Octave....	5 "	23	H. J. Heinz, Pitts. burg.	.....
" 6	" ..	56414	Lonis M. Langlois, St. Octave.	3 "	20	" "	J. B. Renaud, Quebec.
" 6	" ..	56416	Paul Therriault, Kempt ...	3 "	20	.....	Whitehead & Turner, Quebec
" 9	" ..	56421	D. E. Bernier.	3 "	23	Unknown	Unknown .... .
" 9	" ..	56424	La Cie Commerciale Langlais-Doran, Amqui.	3 "	23	H. J. Heinz, Pittsburg.	... .
" 9	" ..	56426	Joseph Goselin, Cider Hall, Sayabee.	3 "	20	.....	N. Rioux, Quebec.
" 9	" ..	56427	Alp. Fernando Boulian.....	3 "	24	Unknown.....	Unknown .....
Oct. 28	" ..	2397	Charles Taillon, Paroisse St. Jerome.	3 "	23	. .....	Chevalier & Pouliot, Joliette.
" 28	" ..	2399	Ernestide Beauchamp, Paroisse St. Jerome.	3 "	25	.....	Jos. Dufresne, Joliette
Nov. 2	" ..	213	A. Leduc, St. Agathe des Monts.	3 bots.	45	....	.....
Dec. 26	" ..	245	P. E. Desjardines, St. Therese de Blainville.	3 "	90	L. A. Price, Bordeaux, France.	.. ..
Oct. 27	" ..	2574	Jos. Langlois, Armagh.....	1 qt.	12	St. Lawrence Vinegar Co.	. .. .
" 27	" ..	2575	" "	1 "	12	....	Turcotte Frere, Quebec.
" 27	" ..	2579	M. Boulanger, Armagh.....	1 "	15	....	A. B. Dupuis, Quebec.
" 27	" ..	2583	C. Beaudoin, Armagh.....	1 "	15	Boivine & Grenier, Quebec.	....
" 27	" ..	2586	Arthur Fradette, Armagh..	1 "	15	A. B. Dupuis, Quebec.	....
" 29	" ..	2588	Antoine Labrecque, St. Raphael.	1 "	15	Naz. Turcotte Cie. Quebec.	....
" 29	" ..	2592	J. A. Lemieux, St. Michel..	1 "	12	St. Lawrence Vinegar Co.	.. ..
" 30	" ..	2593	George Roy, St. Michel....	1 "	14	" " ..	. .. .
" 30	" ..	2594	" " ...	1 "	10	" " .	....
Nov. 3	" ..	2595	Onesime Noel	1 "	15	" " ..	.....
Oct. 26	" ..	2856	Dorchester Lumber, St. Malachi.	1 "	10	" "	....
Nov. 9	" ..	3703	A. J. Caillouette, St. Justine.	1 "	15	Carrier & Fils, Quebec.	.....
" 10	" ..	3702	Joseph Doyon, St. Justine..	1 "	15	St. Lawrence Vinegar Co., Quebec.	J. B. Renaud, Quebec.
" 11	" ..	3708	Bolduc & Genest, St. Sabine.	1 "	15	" " ..	Drouin & Frere..

SESSIONAL PAPER No. 14

VINEGAR (OTHER THAN WHITE WINE, MALT AND CIDER).

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.									No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Grains per 100 cc.						Formic Acid.				
	Acidity as Acetic.	Total Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented Vinegar.	Mgms. per 100cc.	Parts per 1,000 of Total Acid.			
Continued.											
....	7·16	·280	·025	Trace .	Trace .	....	.	.		56409	Genuine.
....	3·98	·150	·035	„ ...	„ .	. .	.	.		56410	„
....	4·47	·135	·030	„ ...	None...	.....	.....			56414	„
.....	6·71	·425	·025	None...	„ .		.....	.		56416	„
. .....	5·77	·210	·02	Trace ..	„ ..	..	..	.		56421	„
....	4·47	·160	·040	„ ...	Trace ..	.....	.....	....		56424	„
....	4·17	·495	·035	None..	None...	...	....			56426	„
....	5·07	·155	·001	Trace ..	„ ..	.	.. .	....		56427	„
Congo	5·09	·315	·010	„ ..	„ ..	....	....	....		2397	„
Proof.	5·57	·259	·014	„ .	„ ..	..	. ..	. ..		2399	„
The Sapho Jennal Special.	3·63	·540	·020	None...	Trace ..	.	....			213	„
....	5·09	·240	·040	Medium	None...	....	....			247	„
Marseillais Natural.	6·61	·220	·015	Trace .	„					2574	„
Colzie Belga. . .	4·08	·530	·025	„	„					2575	„
... .	4·75	·775	·065	None .	„ .					2579	„
Colzie . .	4·80	·690	·025	„	„					2583	„
Colzie., ...	3·58	·485	·020	„ .	„					2586	„
. . . . .	4·87	·580	·020	„	„					2588	„
. . . ...	5·86	·440	·020	Trace .	„					2592	„
....	6·16	·595	·038	„	„					2603	„
. .	5·32	·410	·030	None	„					2594	„
....	4·92	·275	·03		„					2589	„
....	4·87	·440	·025	„	„					2587	„
Proof	4·67	·40	·02	„	„					3703	Below proof strength.
. . . .	7·75	1·24	·385	Trace	.	...	...	.....		3702	Genuine.
. . . .	1·98	·445	·055	None	„					3705	„

Date of Collection.	Nature of Sample	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF QUEBEC PROVINCE—				
1914.							
Nov. 12	Vinegar...	3711	Jos. Turgeon. St. Isidore...	1 qt.	15	Bernier, Scotts Junc.	.....
13	" ..	3717	J. B. Turgeon, St. Isidore .	1 "	15	" " ..	.....
Dec. 2	" ..	2871	D. Tarvel, St. Leon de Standon.	1 "	15	Dorchester Lumber St. Malachi.	....
" 2	" ..	2872	O. Audet, St. Leon de Standon.	1 "	15	St. Lawrence Vinegar Co.	....
" 3	" ..	2880	A. Clouthier, St. Odilon.	1 "	15	St. Lawrence Vinegar. Co.	.....
" 4	" ..	2883	L. J. Audet, St. Edouard.	1 "	15	St. Lawrence Vinegar Co.	Dorchester Lumber.
" 8	" ..	3718	M. Dechine, St. Germaine Sta.	1 "	15	.....	J. B. Renaud. Quebec.
" 9	" ..	3722	D. Fortier, St. Rose Dorchester.	1 "	15	....	Carrier & Fils, Levis.
" 10	" ..	3725	D. Roy, St. Prospere Dorchester.	1 "	25	.....	J. B. Renaud, Quebec.
" 21	" ..	3733	A. Mercier, St. Patrie de Beaurivage.	1 "	15	....	" " ..
" 22	" ..	3734	O. Fradette, St. Narcisse neud Bois.	1 "	15	....	N. Reno, Quebec.
" 22	" .	3739	A. Demers, St. Narcisse neud Bois.	1 "	15	....	Gagnon & Garent, Quebec.
" 23	" ..	3742	Jos' Blais, St. Bernard Dorchester.	1 "	15	....	Bernier Scott, Dorchester.
Nov. 21	" ..	2724	Henrie Fournier, Capt St. Ignace.	3 pt.	25	....	St. Laurent, Quebec.
" "	" ..	2726	Jos. M. Dube. Capt St. Ignace.	3 "	25	....	Gagnon & Garent.
" 24	" ..	2732	Jos. Breton, St Pierre, Mont.	3 "	25	.....	J.B.E. Letellier, Quebec.
			DISTRICT OF THREE RIVERS—				
Oct. 30	Vinegar...	2640	Arthur Caisse, Berthierville.	1 qt.	15	.....	Lariviére Bros., Montreal.
" 30	" ..	2644	J. D. Daviault, Berthierville.	1 "	15	. . . .	Laporte, Martin & Cie, Montreal.
" 26	" ..	2677	J. W. Lacasse, L'Assomption.	1 "	18	....	Chevalier & Pouliot, Joliette.
" 26	" ..	2678	Louis Pauze, L'Assomption	1 "	18	. . ..	Hudon Herbert, Montreal.
" 28	" ..	2679	Archibald Duff, Charlemagne.	1 "	15	....	Mathewson Sons Co., Ltd., Montreal.
" 28	" ..	2681	Euclid Beauchamp, Charlemagne	1 "	15	....	Hudon Orsali, Montreal.

SESSIONAL PAPER No. 14

VINEGAR (OTHER THAN WHITE WINE, MALT AND CIDER).

Inspectors's Report. (Is not an expression of opinion.)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Grains per 100cc.						Formic Acid.			
	Acidity as Acetic.	Total Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented Vinegar.	Mgms. per 100cc.	Parts per 1000 of Total Acid.		
Concluded.										
Proof	5·72	0·30	·025	Trace	None				3711	Genuine.
"	5·62	4·45	·030	None	"				3717	"
	4·78	0·465	0·015	None	"				2871	"
	4·97	0·445	0·020	"	"				2872	"
Proof	5·37	0·480	0·030	Trace	"				2880	Slightly below proof
	7·85	0·560	0·025	None	"				2883	Genuine.
	4·77	0·325	0·010	"	"				3718	
	5·58	0·535	0·020	"	"				3722	"
	4·93	0·215	0·010	"	"				3725	"
	4·52	0·405	0·035	"	"				3733	"
	4·42	0·565	0·025	"	"				3734	"
	6·01	0·390	0·015	Trace					3739	"
	5·91	0·415	0·020	None	"				3742	"
	6·20	0·550	0·025	"	"				2724	"
Vinaigre Rouge.	6·15			"	"	Trace			2720	"
	5·86	0·42	0·03	"	"				2731	"
DR. V. P. LAVALLEE, INSPECTOR.										
	5·14	0·165	0·010	None	None				2840	Genuine.
	4·87	0·345	0·020	Med	"	Trace			2844	"
	5·37	0·330	0·010	Trace	"				2871	"
	5·72	0·735	0·180	Copr	Trace	Trace			2878	"
	4·17	0·240	0·015	Trace	None				2879	"
	5·81	0·250	0·015	"	"				2881	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
DISTRICT OF THREE RIVERS—							
1914.							
Oct. 28	Vinegar..	2683	Edm. Robillard, St. Paul L'Ermite.	1 qt	33	Umderlop Co., Demi Johns Balmans, Montreal.	.. ..
" 29	" ..	2684	O. Carignan Fils, Three Rivers.	1 "	50	....	J. B. Renaud & Cie, Quebec.
" 31	" ..	2698	Joseph Fernet, Fernetville.	1 "	10	..... .	Chevalier & Pouliot, Joliette.
Nov. 2	" ..	3903	Arthur Tessier, St. Felix de Valois.	1 "	10	.. . .	" ..
DISTRICT OF EASTERN TOWNSHIPS—							
Nov. 11	Vinegar..	63032	The Daly Grocery Co., Stanstead.	3 qts.	30	Canadian Vinegar Co., Montreal.	....
" 23	" ..	63034	H. Messier, St. Hyacinthe.	3 "	25	. ...	L. Chaput Fils & Cie, Montreal
DISTRICT OF MONTREAL—							
Nov. 24	Vinegar..	62527	J. G. Garent, 381 Latalle rd., Verdun.	3 bots	30	... .	The Lion Vinegar Co., Montreal.
" 26	" ..	62533	Albert Steinfeld, 83 Demontigny st. e., Montreal.	3 pts.	21	Sapho. Man. Co., Montreal.	.....
" 26	" .	62534	J. Hoffman, 106 Demontigny st. e., Montreal.	2 "	24	.. ..	P. Adelstein, Montreal.
DISTRICT OF VALLEYFIELD—							
Dec. 10	Vinegar..	62813	Z. Lamare, Longueuil.....	3 pts.	15	....	....
" 15	" ..	62820	J. H. Boyer, New Salleberry.	3 "	15	.....	....
DISTRICT OF OTTAWA—							
Oct. 23	Vinegar..	63512	The Foster Bennett Co., Ltd., River Desert.	3 bots	60	Wilson, Lytle, Badgerow Co., Toronto	....
" 27	" ..	63514	Jos. Martel & Cie, Hull....	3 "	15	The Lion Vinegar Co., Ltd., Montreal	S. J. Major, Ltd., Ottawa.

SESSIONAL PAPER No. 14

VINEGAR (OTHER THAN WHITE WINE, MALT AND CIDER).

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Grams per 100cc. Acidity as Acetic.	Total Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented Vinegar.	Formic Acid. Mgms. per 100c.	Parts per 1,000 of Total Acid.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.										
	5·43	0·275	0·030	None...	Trace...	.....	...	...	2683	Genuine.
	5·81	0·595	0·015	Trace.	None ...	...	...	...	2684	"
	4·82	235	015	Trace.	None.	...		...	2698	"
	5·53	·270	·025	"	"	...	.....	...	3903	"
J. J. COSTIGAN, ACTING INSPECTOR.										
Coloured spirit ..	5·17	·335	015	None.	None	.....	....	...	63032	Genuine. Coloured.
Spirit.	5·86	145	·015	Slight trace.	"	.	..		63034	"
D. J. KEARNEY, INSPECTOR.										
..	4·28	1·46	170	Heavy.	Heavy.		Trace		62527	Genuine.
..	3·37	250	015	Trace.	Trace.		Trace		62533	"
..	4·08	280	005	None.	None.				62834	"
J. J. COSTIGAN, ACTING INSPECTOR.										
Spirit	6·48	·11	002	Trace	None.				62815	Genuine.
	5·37	385	020	Slight trace	"		None		62820	"
J. A. RICKEY, INSPECTOR.										
Pure Spirit 50 O. P	7·75	140	010	Trace	None				6301	Genuine.
Proof Reina Brand Pure Spirit Vinegar	5·92	270	025	"	Trace				62814	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF OTTAWA—							
1914.							
Nov. 6	Vinegar..	63519	L. Z. Caron, Nelson and Wilbrod sts., Ottawa.	3 bots	10	Heinz, Pittsburg....	.....
" 9	" ..	63520	Halpenny & Co., 590 Bank st., Ottawa.	3 "	10	The Lion Vinegar Co.. Montreal.	.....
DISTRICT OF KINGSTON							
Oct. 28	Vinegar..	61557	John Gordon, Kingston....	1 qt..	10	H. J. Heinz, Deamington.	....
" 28	" ..	61559	D. B. Murray, Kingston...	1 "	10	D. B. Murray, Kingston.	.....
" 29	" ..	61560	J. Gilbert, Kingston..	1 "	10	" ..	....
" 29	" ..	61562	H. M. Stover, Kingston...	1 "	10	....	Fenwick, Hendry, Co., Kingston.
" 29	" ..	61563	W. J. Arniel, Kingston....	1 "	10	D. B. Murray, Kingston.	.. . .
DISTRICT OF MANITOBA—							
Nov. 10	Vinegar...	61204	H. Hastie, Carman.....	3 pts.	15	J. C. Wilson, Toronto	The Codville Co., Winnipeg.
" 16	" ...	61208	Berney & Chapman, St. James, Man.	3 "	15	Blackwoods, Ltd., Winnipeg.	Mfrs . . ..
" 16	" ...	61209	" "	3 "	15	" "	" .....
" 17	" ...	61210	D. Dalman, Selkirk..	3 "	30	" "	" . ...
DISTRICT OF SASKATCHEWAN—							
Oct. 28	Vinegar...	64055	The M'Leod Co., Prince Albert.	3 bots.	20	Pioneer Vinegar Co., Edmonton.	Northern Produce Co.
Nov. 2	" ...	64078	Beacock & Hodges, Mortlach.	3 "	20	Wilson, Lytle, Badgerow Co., Toronto.	H. G. Smith & Co., Regina.
" 5	" ...	64091	Paragon Store, Moosejaw...	5 qts.	60	White Star Mfg. Co., Winnipeg.	Crawford & Co., Moosejaw.

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VINEGAR (OTHER THAN WHITE WINE, MALT AND CIDER.)

Concluded.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Grains per 100cc. Acidity as Acetic.	Total Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented Vinegar.	Formic Acid. Mgms. per 100cc.	Parts per 1,000 of Total Acid.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
White Crystal Label Vinegar.	4·13	·405	·015	None.	None.	....	....	....	63519	Genuine.
Pure Spirit Vinegar.	3·88	·145	·015	Trace.	Trace.	....	....	....	63520	"

JAMES HOGAN, INSPECTOR.

Spirit.....	3·83	·105	·015	Trace.	Trace.	....	....	....	61557	Genuine.
"	9·24	·180	·015	"	"	....	....	....	61559	"
"	3·60	·075	·010	Slight trace.	None.	....	Trace.	....	61560	"
"	4·35	·130	·015	"	"	....	Trace.	....	61562	"
"	3·63	·100	·010	Trace.	Trace.	....	....	....	61563	"

A. C. LARIVIERE, INSPECTOR.

.....	8·52	0·935	0·030	none.	med.	....	....	....	61204	Genuine.
Spirit xxx Brown	2·77	0·530	0·060	heavy.	heavy.	....	trace.	....	61208	Below standard strength.
" White.	3·60	0·275	0·005	"	"	....	....	....	61209	Genuine.
Pure White Spirit.	5·84	....	....	"	"	....	....	....	61210	"

L. H. HALL, INSPECTOR.

White Wine (Spirit).	4·94	0·380	0·020	trace.	trace.	....	....	....	6405	Spirit Vinegar Genuine.
" "	9·37	0·285	0·005	"	none.	....	trace.	....	6407	"
White Wine White Star Brand.	4·57	0·525	0·050	heavy.	med.	....	....	....	6408	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF ALBERTA—							
1914.							
Nov. 18	Vinegar...	52020	S. G. Freeze, Calgary .. .	3 bots.	60	Simmington & Co., Calgary.	....
" 18	" ...	52021	John Irwin & Co., Calgary.	3 "	60	The Dyson Co., Winnipeg.	....
" 24	" ...	52022	Pride Nash & Co., Stettler..	3 "	75	" "	....
" 26	" ...	52026	Lake & Co., Wetaskiwin...	3 "	75	Pioneer Vinegar Co., Edmonton.	....
" 26	" ..	52027	Fowler & Co., Wetaskiwin..	3 "	60	The Dyson Co., Winnipeg.	.....
DISTRICT OF ROCKY MOUNTAINS—							
Nov. 10	Vinegar...	61710	E. W. Hazlewood, Trail....	3 bots.	60	Pure Fruit Mfg. Co., Vanc.	.....
" 23	" ...	61726	Hudsons Bay Co, Kamloops.	3 "	65	Jones Bros. Co., Portland, Ore.	....
DISTRICT OF VANCOUVER—							
Oct. 28	Vinegar ..	55106	Birds Grocery. 1304 Commercial Dr., Vance.	3 bots.	45	B.C. Vinegar Wks., Vanc.	.....
DISTRICT OF NOVA SCOTIA—							
Dec. 5	Vinegar...	65803	A. A. M'Donald, New Glasgow, N.S.	3 pts.	45	Heinz, Leamington, Ont.	Mfrs.....
" 5	" ...	65809	James McArthur	3 "	45	MacCready & Sons, St. John, N.B.	" ....
DISTRICT OF VICTORIA—							
Nov. 14	Vinegar..	62019	Dixie H. Ross, Victoria, B.C.	3 qts.	60	Geo. Downs & Co., Ltd., Dublin.	... ...

SESSIONAL PAPER No. 14

VINEGAR (OTHER THAN WHITE WINE, MALT AND CIDER.)

Inspector's Report. (Is not an expression of opinion.	Results of Analysis. Grains per 100cc. Acidity as Acetic.	Total Solids.	Ash.	Chlorides.	Sulphates.	Iodine test for fermented Vinegar.	Formic Acid. Mgms. per 100cc.	Parts per 1,000 of Total Acid.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
A. W. R. MARKLEY, INSPECTOR.										
Finest pure xxx Table Vinegar, bottled expressly for Vendor.	4·02	0·375	0·035	none. .	trace....	.....	....	...	52020	Genuine.
Dyson's Red Cross Pure Spirit Wine Vinegar, Govt. standard.	5 61	0·32	0 09	med....	med . .	ppt. .	none..	. . .	52021	"
" " ..	4 58	0·970	0·065	heavy..	" ...		" ..	. . .	52022	"
Buffalo Brand White Wine Cider.	3·78	0·30	0·035	none.	trace....	. . .	" ..	. .	52026	Spirit Vinegar.
50 per cent Spirit White Wine, Govt. standard.	3 0	8 22	0 155	ppt. .	ppt. . ..	. . .	trace..	. .	52027	Below standard strength.
THOS. PARKER, INSPECTOR.										
Pure Fruit.....	2 5	0 150	0 010	none . .	none.. .	. . .	trace..	...	61719	Below standard strength.
White Pickling.	4 23	0 540	0 025	trace	trace..			. . .	61726	Genuine.
E. J. MORGAN, INSPECTOR.										
Pure Canadian, mfgd. and bottled in bond.	3 42	0 545	0 005	none	none .		trace .		76106	Genuine.
W. A. PETIPAS, TEMP. INSPECTOR.										
. .	4 12	0 505	0 140	trace	none..				68[illegible]	Genuine.
. . . .	3 48	0 285	0 025	none	"				68[illegible]	"
D. O'SULLIVAN, INSPECTOR.										
Pure Belmont . .	2 90	0 50	0 02	none . .	none.. .	. . .	none		6301[illegible]	Below standard strength.

APPENDIX E.

BULLETIN No. 314 –WHITE PEPPER.

Ottawa, May 28, 1915.

J. U. Vincent, Esq.,
Deputy Minister Inland Revenue.

Sir,—I beg to hand you a report dealing with three hundred and eighteen (318) samples of White Pepper, purchased throughout Canada by our inspectors in January, February and March of this year. To this I have appended as a supplement, the results of analysis of sixty-nine (69) samples of pepper collected in British Columbia during September and October of last year. This report therefore covers a total of three hundred and eighty-seven (387) samples of pepper.

The last named collection of sixty-nine samples was made in consequence of certain complaints by responsible persons, to the effect that adulterated pepper was being offered for sale in British Columbia. The results of analysis indicate that so far as samples taken by our inspectors are concerned, the complaint made was without foundation. Only one sample was found to be adulterated. Of the 318 samples purchased during the first three months of this year, 305 are found to be genuine.

Adulteration in the case of 13 samples consists in the addition of starch or flour, without notification to the purchaser. The amounts vary from about 10 to about 60 per cent. The percentage of adulteration is 4·1 ; a result which compares very favourably with that found in 1913 (Bull. 250) when 19 per cent. adulteration was found.

Correspondence with vendors has brought out the fact, that in many cases the pepper sold to our inspector as such, has been supplied by the manufacturer or furnisher as a compound article, and properly labelled such on the package or container. When this is the case, the retail dealer is quite evidently responsible for his action in selling the article without declaration of its compound character.

In a number of instances I find that the manufacturer labels his goods, "Compound XXX pepper," the triple X indicating a high grade article, and some retailers claim that they feel justified in selling it as *pure*, on this account. In several cases I find pepper to have been supplied to the retail dealer as "Pure Compound." Such labelling is entirely reprehensible, and I think that the small dealer who is induced to sell the article as *pure* in virtue of his having bought it with a label of the kind described, should have legal recourse against the furnisher.

While pepper continues to be one of the most notably adulterated foods, it is very gratifying to observe a great improvement in the character of this article since the enforcement of the Adulteration Act. The following synopsis is of interest :—

Year of Inspection.	Percentage of Adulteration.
1876 and 1877	83·0
1878	70·0
1879	50·0
1880	43·0
1881	66·6
1882	69·0
1883	65·0
1884	71·0
1885	57·3
1886	51·3
1888	69·0
1890	52·0
1891	58·5
1894	46·8
1896	27·4
1899	20·0
1900	22·7
1904	55·4
1905	42·0
1908	24·1
1910	16·6
1913 (black)	17·0
1913 (white)	19·0
1915 (white)	4·1

I beg to recommend publication of this report as Bulletin No. 314

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
			DISTRICT OF NOVA SCOTIA—				
1915.							
Feb. 26	White Pepper.	64111	J. L. Wilson & Co., Halifax, N. S.	3 pkgs	22	W. H. Schwartz & Sons, Halifax, N.S.	Mfrs.
Mar. 4	"	64112	Bauld Bros., Ltd., Halifax, N. S.	3 "	27	" "	"
" 4	"	64113	Wm. Moore, Halifax, N. S.	¾ lbs.	30	J. P. Mott & Co., Halifax, N. S.	"
" 4	"	64114	R. B. Seeton & Co., Halifax, N. S.	3 pkgs	27	W. H. Schwartz & Sons, Halifax, N.S.	"
" 5	"	64115	Payzant & King, Halifax, N. S.	3 "	21	J. P. Mott & Co., Halifax, N. S.	"
" 5	"	65116	Nat. Drug & Chem. Co., Halifax, N. S.	¾ lbs.	30	Vendors	
" 5	"	64117	Jas. Scott & Co., Halifax, N. S.	¾ "	30	W. H. Schwartz & Sons, Halifax, N.S.	Mfrs.
" 5	"	64118	Brown Bros. & Co., Halifax, N. S.	¾ "	30	S. H. Ewing & Sons, Montreal.	"
" 6	"	64119	John P. Mott & Co., Halifax, N. S.	¾ "	30	Vendors.	
" 9	"	64120	W. H. Schwartz & Sons, Halifax, N. S.	¾ "	27	"	
" 12	"	64121	Yerxas, Kentville, N.S.	3 pkgs	30	H. W. Cole, St. John, N. B.	Mfrs.
" 12	"	64122	" "	3 "	30	White Swan S. & C Co., Toronto, Ont.	"
" 12	"	64123	Cross & De Wolfe, Kentville, N. S.	3 "	30	McCready & Sons, St. John, N. B.	"
" 15	"	64124	H. S. Hall, Bridgewater, N. S.	3 "	30	Todhunter & Mitchell Co., Toronto.	"
" 16	"	64125	B. G. Oxner, Lunenburg, N. S.	3 "	30	Gorman Eckhart, Toronto.	"
			DISTRICT OF NOVA SCOTIA—				
Feb. 19	White Pepper.	65821	2 Barker's Ltd., New Glasgow, N. S.	3 tins.	27	McLaren's, Ltd., Hamilton, Ont.	Unknown.
" 19	"	65825	James McArthur, New Glasgow, N. S.	3 "	30	G. E. Barbour, St. John, N. B.	Mfrs.
" 19	"	65826	James Cavanagh, New Glasgow, N. S.	1 lb.	40	" "	"
" 19	"	65827	C. Grant, New Glasgow N. S.	3 tins.	30	Gorman, Eckert & Co., London, Ont.	"
" 19	"	65828	" "	3 pkgs	30	W. H. Schwartz, Halifax, N. S.	Unknown
" 19	"	65829	A. J. Roop, New Glasgow, N. S.	1 lb.	40	Gorman, Eckert & Co., London, Ont.	Mfrs.
" 19	"	65830	S. M. Lockhart, New Glasgow, N. S.	3 pkgs	30	G. E. Barbour, St. John, N. B.	"
" 19	"	65831	D. J. Murray, New Glasgow, N. S.	3 "	30	C. H. Cochrane & Co., Ottawa.	Unknown

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WHITE PEPPER.

Inspector's Report. (Is not an expression opinion.)	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH, INSPECTOR.				
	p. c.			
.....	1·04	Pepper tissues only.....	64111	Genuine
.....	0·86	" "	64112	"
.....	1·16	" "	64113	"
.....	1·06	" "	64114	"
.....	1·02	" "	64115	"
.....	1·06	" "	64116	"
.....	1·20	" "	64117	"
.....	1·20	" "	64118	"
.....	1·14	" "	64119	"
.....	1·26	" "	64120	"
"Thistle" Brand.....	2·50	" "	64121	"
White Swan Brand.....	1·80	" "	64122	"
.....	1·14	" "	64123	"
.....	0·86	" "	64124	"
.....	1·20	" "	64125	"
W. A. PETIPAS, TEMPORARY INSPECTOR.				
.....	1·02	Pepper tissues only	65824	Genuine
.....	0·90	" "	65825	"
.....	0·92	" "	65826	"
.....	1·98	" "	65827	"
.....	1·14	" "	65828	"
.....	1·68	" "	65829	"
.....	1·00	" "	65830	"
.....	0·82	" "	65831	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF PRINCE EDWARD ISLAND—				
1915.							
April 8	White Pepper.	60165	Jenkins & Son, Charlottetown, P.E.I.	1 lb..	40	John P. Mott & Co., Halifax, N.S.	
" 8	" ..	60166	Beer & Goff, Charlottetown, P.E.I.	3 pkgs	30	" " ..	
" 8	" ..	60167	Coffin & Co., Charlottetown, P.E.I.	1 lb..	40	W. H. Schwartz & Son, Halifax, N.S.	
" 8	" ..	60168	E. Toombs, Charlottetown, P.E.I.	1 " ..	40		Carvell Bros., Charlottetown, P.E.I.
" 8	" ..	60169	W. W. Walker, Charlottetown, P.E.I.	1 " ..	40	W. H. Schwartz & Son, Halifax, N.S	
			DISTRICT OF NEW BRUNSWICK—				
Jan. 29	White Pepper.	59686	H. W. Cole, Ltd., St. John, N.B.	1 lb..	30	Vendors	
" 30	" ..	59687	Dearborn & Co., St. John, N.B.	3 tins.	40	"	
Feb. 1	" ..	59688	2 Barkers, Ltd., St. John, N.B.	1 lb..	30	"	
" 3	" ..	9689	Walter Gilbert, St. John, N.B.	3 tins.	30	Pure Gold Mfg. Co., Ltd., Toronto, Ont.	
" 9	" ..	59690	G. E. Barbour Co., Ltd., St. John, N.B.	3 pkgs	30	" " ..	
" 9	" ..	59691	Puddington, Wetmore, Morrison, Ltd., St. John, N.B.	1 lb..	25	" " ..	
" 10	" ..	59692	L. H. Thorne, St. John, N.B.	1 " ..	30	" "	
" 16	" ..	59693	Hill Bros., St. Stephen, N.B.	1 " .	50	Wright, Crossley & Co., Liverpool, Eng.	
" 19	" ..	59694	Baird & Peters, Fredericton, N.B.	3 pkgs	30	Jno. P. Mott & Co, Halifax, N.S.	
" 24	" ..	59695	J. L. White, Grand Falls, N.B.	3 " ..	30	G. E. Barbour & Co., Ltd., St. John, N.B.	
Mar. 2	" ..	59696	Sussex Mercantile Co., Ltd., Sussex, N.B.	1 lb..	50	H. W. Cole, Ltd., St. John, N.B.	
" 3	" ..	59697	Reed Co, Ltd., Moncton, N.B.	3 pkgs	26	Jno. P. Mott & Co., Halifax, N.S.	
" 3	" ..	59698	Geo. A. Robertson, Moncton, N.B.	1 lb..	40	S. H. & A. S. Ewing, Montreal.	
" 3	" ..	59699	Simon Melanson, Moncton, N.B.	1 " ..	40	C. H. Cochrane & Co., Ottawa, Ont.	
" 3	" ..	59700	J. T. Ryan, Moncton, N.B.	3 pkgs	30	Nat. Drug and Chem. Co., St. John. N.B.	
			DISTRICT OF QUEBEC CITY—				
Jan. 20	Poivre Blanc..	60774	Arthur Drolet, 712 Rue St. Valier, Quebec.	1 lb..	40	Unknown	Langlois & Paradis.
" 22	" ..	60775	Myrand & Pouliot, 70 Rue de la Couronne, Quebec.	1 " ..	50	"	J. B. Renaud & Cie.

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WHITE PEPPER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
WM. WEEKS, INSPECTOR.				
	p. c.			
....	1·18	Pepper tissues only	60165	Genuine.
....	0·86	" "	60166	"
....	1·08	" "	60167	"
....	1·32	" "	60168	"
.. ..	1·54	" "	60169	"
JOHN C. FERGUSON, INSPECTOR.				
....	1·08	Pepper tissues only	59686	Genuine.
"National Brand"	2·40	" "	59687	"
. ...	1·20	" "	59688	"
....	1·16	" "	59689	"
"Acorn Brand"	1·02	" " ..	59690	"
... ...	4·04	" " Black Pepper	59691	" Is black pepper
...	1·14	" "	59692	"
	1·10	" "	59693	"
	1·16	" "	59694	"
"Acorn Brand" ...	6·06	" " Black Pepper.	59695	" Is black pepper
... ...	2·50	" "	59696	"
... ...	1·14	" "	59697	"
... ...	2·24	" "	59698	"
... ...	0·92	" "	59699	"
...	1·10	" "	59700	"
F. X. W. E. BELAND, INSPECTOR.				
... ...	1·57	Pepper tissues only	60171	Genuine.
... ...	1·23	"	60172	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
						DISTRICT OF QUEBEC CITY—	
1915.							
Jan. 22	Poivre Blanc.	60776	C. Riverin, 55 Rue de la Couronne, Quebec.	1 lb.	50	Unknown.....	Turcotte & Frere
" 22	" ..	60777	W. Pampalon, 120 Rue D'Orchester, Quebec.	1 " ..	40	....	N. Turcotte & Cie.
" 26	" ..	60778	Eng. Lacasse, 48 Rue St. Ambroise, Quebec.	1 " ..	50	Unknown.	" ....
" 26	" .	60779	J. B. Lapointe, 57 Rue St. Ambroise, Quebec.	1 " .	40	"	" ....
" 26	"	60780	W. Bilodeau, 13 Rue St. Therese, Quebec.	1 " ..	40	"	Unknown .... ..
" 26	" ..	60781	Jean Gauthier, 50 Rue Boilard, Quebec.	1 " ..	40	"	Turcotte & Frere
26	" .	60782	J. Pepin, 132 Rue Massue, Quebec.	1 " .	40	Ewing & Co., Montreal.	Mfrs.. . .. .
" 26	" ..	60783	E. Belzerite, 190 Rue Massue, Quebec.	1 " ..	40	Unknown.....	Drouin & Frere.
" 26	" .	60784	Jos. Peltier, 185 Rue Massue, Quebec.	1 " ..	40	"	J. B. Renaud & Cie.
" 26	" ..	60785	R. Picard, 132 Rue St. Luc, Quebec.	1 " ..	40	"	Drouin & Frere.
" 26	" .	60786	D. Barrette, 142 Rue Napoleon, Quebec.	1 " ..	40	"	Quebec Preserving Co.
" 26	" ..	60787	De l Petitclerc, 99 Rue St. Germain.	1 " ..	40	"	N. Rioux & Cie.
" 26	" ..	60788	Jos. Blondeau, 101 Rue St. Germain, Quebec.	1 " .	40	"	N. Turcott& Cie.
						DISTRICT OF QUEBEC PROVINCE—	
Jan. 18	Poivre Blanc..	3745	Syndica de Thetford Mines.	1 lb..	40	S. H. Ewing & Son Montreal.	....
" 20	" ..	3751	John O'Brien, Black Lake, Megantic.	3 boite	30	Chaput & fils, Montreal.	... .
" 25	" ..	3756	Dodier Crete, Levis...	1 lb.	40	C. H Cochrane & Co., Ottawa.	....
" 28	" ..	3771	Louis Mercier & Co., Levis.	1 " ..	40	Unknown.	.....
" 30	" .	3777	Frs. Bourret, 145 St. Paul, Quebec.	1 " ..	45	"	Unknown .....
Feb. 2	" ..	3782	P. L. Turgeon, Enregistre, Quebec.	1 " ..	40	S. H. Ewing & Son, Montreal.	.....
" 2	" ..	3783	Boyer & Son, Quebec.	1 " ..	50	Leblanc, Ltd., Montreal.	....
" 4	" ..	3787	A. Boily, Quebec	1 " ..	40	Herron Leblanc, Ltd., Montreal.	. ...
" 10	" ..	3789	Lacasse & Aude, St. Edward	1 " ..	40	Dorchester Lumber.	... .
" 11	" ..	3792	G. E. Dussault, St. Marguerite.	1 " ..	40	Brunnette & Cie, Quebec.	....
" 8	" ..	3503	Adelard Belanger, St. Lazare.	1 " ..	35	Drouin Frere & Rattray, Quebec.	....
" 8	" ..	3504	Alph. Bilodeau, St. Lazare.	1 " ..	35	Naz. Turcotte & Cie.	....

SESSIONAL PAPER No. 14

WHITE PEPPER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.				
	p.c.			
.....	1·51	Pepper tissues only.	60776	Genuine.
.....	2·26	Pepper tissues and about 30 to 40% wheat starch.	8077.	Adulterated.
.....	2 86	Pepper tissues and about 15 to 20% maize starch.	60778	"
.....	1 15	Pepper tissues only.....	60779	Genuine.
.....	2 21	" "	60780	"
.....	1·84	" "	60781	"
.....	2·14	" "	60782	"
.....	1·88	" "	60783	"
.....	1·84	" "	60784	"
.....	2 66	" "	60785	"
.....	1 15	" "	60786	"
.....	1 17	" "	60787	"
.....	1 14	" "	66788	"

J. E. AUDET, N. CADIEUX, T. GENDRON, ALF. PELLETIER, TEMP. INSPECTORS

.. ..	2 83	Pepper tissues only ..	3745	Genuine.
....	3 23	" " . .	3750	"
... . .	2 07	" " . .	3756	
.....	3 78	" "	3771	
. . .	1 16	" " . ..	3777	
.....	2 19	" "	3782	
.....	2 35	" "	3789	
.....	2 31	" "	3787	
. . .	1 10	" . ..	3786	
.. .	2 77	.. ..	3792	
	2 00	" .	3800	
.....	2 21	" and about 2[illegible] to 30 per cent wheat starch.	3804	Adulterated

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF QUEBEC PROVINCE—	
1915.							
Feb. 8	Poivre Blanc..	3507	J. B. W. Roy, St. Gervais.	1 lb..	40	Turcotte frere, Quebec.	....
" 8	" ..	3509	G. Carrier, St. Gervais.	1 "	30	W. Brunet & Cie...	....
" 9	" ..	3511	J. Bhacone, St. Charles	1 "	35	J. B. Renaud & Cie, Quebec.	.....
" 9	"	3513	Joseph Laboute, St. Charles.	1 "	35	Turcotte & freres. ..	....
" 9	" ..	3514	Alph. Nadeau, St Charles.	1 "	40	Langlois & Paradis..	....
" 9	" ..	3518	Geo. Roy, St. Michel..	1 "	40	S. H. Ewing & Son, Montreal.	... .
" 9	" ..	3520	Louis Carriveau, St. Michel.	1 "	35	Turcotte & freres, Quebec.	....
" 10	" ..	3522	Eugene Bolduc, St. Valier.	1 "	40	" ..	.....
" 10	" ..	3524	L. N. Roy, St. Valier..	1 "	40	Langlois & Paradis..	. ...
" 10	" ..	3525	Achille E. Lamarre, St. Valier.	1 "	30	Canadian Spice Mills, Quebec.	.....
" 10	" ..	3526	Theodore Bernard, St. Raphael.	1 "	35	Quebec Preserving Co., Quebec.	....
" 10	" ..	257	Dame Nap. Fournelle, St. Agathe des Monts	1 livre	50	Watt Godon & Co..	....
" 10	" ..	258	Rodrigue Touchette, St. Agathe des Monts.	1 "	40	Laporte & Martin...	....
" 10	" ..	259	Dme. L. W. Brisette, St. Agathe des Monts	1 "	40	Hudon Hebert & Cie	....
" 10	" ..	260	H. Giroux, St. Agathe des Monts.	1 "	40	S. H. Ewing.....	....
" 10	" ..	261	Noe Forget, St. Agathe des Monts.	1 "	40	Hudon & Orsali...	.....
Jan. 20	" ..	2737	Ed. Dancans Montmagny.	1 lb..	10	.....	Whitehead & Turner, Quebec
" 20	" ..	2738	Emile Dube, Montmagny.	1 "	40	....	J. B. Renaud, Quebec.
" 21	" ..	2739	Romeo L. Esperance, Montmagny.	1 "	50	....	J. V. Boudrias, Ltd., Montreal
" 27	" ..	2741	Alp. Letarneau, St. Pierre, Montmagny Co	1 "	40	....	Turcotte Frere & Cie, Quebec.
" 28	" ..	2743	Pierre Morin, Cap. St. Ignace	1 "	40	.....	C. A. Carrier & fils, Ltd., Levis.
" 30	" ..	2747	Joseph Fourinier, St. Thomas, Montmagny Co.	1 "	40	....	N. Rioux & Cie, Quebec.
Feb. 1	" .	56438	Uillz Kirouac, Cacouna.	1 "	45	... ...	T. Langlais, Fraserville.
" 1	" ..	56439	Pierre Roy "	1 "	40	....	Turcotte & Frere, Quebec.
" 1	" ..	56440	J. Erneste Dugas "	1 "	40	....	T. Langlais, Fraserville.
" 1	" ..	56441	H. J. Servis & Cie "	1 "	40	.....	Turcotte & Frere, Quebec.
" 3	" ..	56445	Joseph Thivierge, Isle Verte.	1 "	40	... .	N. Rioux, Quebec.

SESSIONAL PAPER No. 14

WHITE PEPPER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.

Concluded.

	p. c.			
....	1·58	Pepper tissues only.....	3507	Genuine.
.. ..	1·92	"	3509	"
... .	1·72	" and about 10 per cent wheat starch.	3511	Adulterated.
... ...	1·98	Pepper tissues and about 20 to 30 per cent maize starch	3513	"
... .	1·15	Pepper tissues only	3514	Genuine.
.. ..	2·28	" ...	3518	"
....	1·65	"	3520	"
....	1·97	"	3522	"
....	1·15	" ...	3524	"
... ...	1·07	" .	3525	"
.. ..	1·47	" ...	3529	"
....	2·25	" ...	257	"
.. ..	1·50	"	258	"
....	2·26	"	259	"
.. .. ..	2·61	"	260	"
.. ..	1·52	"	261	"
.. ..	2·26	"	2737	"
... ...	1·41	"	2738	"
... .. .	2·93	"	2739	"
.. .. ..	1·50	"	2741	"
... ...	1·04	"	2743	"
	1·48	"	2745	"
	2·83		2748	
	2·96	" and about 40 p.c. maize and wheat starch	2749	Adulterated.
	2·85	Pepper tissues only	2750	Genuine.
	1·62	"	2751	"
	0·98	"	2752	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF THREE RIVERS—				
1915.							
Jan. 18	Poivre Blanc..	3940	Joseph Dufresne, Joliette.	1 lb.	24	Herron Leblanc, Montreal	
" 19	"	3941	Joseph Bordelean, Joliette.	1 "	50		Chevalier et Pouliot, Joliette.
" 20	"	3942	W. M. Perrault, Joliette	1 "	50		Chevalier et Magnan, Joliette.
" 20	"	3943	J. A. Boisvert "	1 "	50		Chevalier et Pouliot, Joliette.
" 20	"	3944	I. E. Dufont "	1 "	40	F. F. Dalley Co., Ltd., Hamilton.	
" 21	"	3945	W. H. Lacasse, L'Assomption.	1 "	35		Chevalier et Pouliot, Joliette.
" 21	"	3946	Edmond Lafortune, L'Assomption.	1 "	36		" "
" 21	"	3947	Theodore Foisy, L'Assomption.	1 "	35	S. H. Ewing, Montreal.	
" 22	"	3948	A. Chaussé, L'Assomption.	1 "	40		Gilbert Hamel Cie., 696 Mount Royal.
" 22	"	3949	Arthur Lafortune, L'Assomption.	1 "	40		Hudon & Orsali, Montreal.
" 22	"	3950	Elzear Parent, L'Assomption.	1 "	40		Chevalier et Pouliot, Joliette.
" 20	"	3951	Camille Barrette, Joliette.	1 "	40		J. J. Soumis, Joliette.
" 27	"	3953	J. Bte. Rivest, Joliette.	1 "	40		
" 27	"	3954	I. H. Deblois "	1 "	50		Jos. Dufresne, Joliette.
" 27	"	3923	H. Morean "	1 "	40		S. H. Ewing, Montreal.
			DISTRICT OF EASTERN TOWNSHIPS—				
Feb. 9	Poivre Blanc..	1772	Ginn & Elliott, Richmond.	1 lb.	30		Mathewson's Sons, Montreal.
" 9	" ..	1773	N. A. Kewalk, Warwick	1 "	40	S. H. Ewing & Sons, Montreal.	
" 9	" ..	1774	J. E. Guilmet, Danville	1 "	40	The F. F. Dally Co., Ltd., Hamilton.	
" 10	" ..	1775	J. H. A. Lafontaine, Victoriaville.	1 "	40	L. Chaput fils & Cie, Montreal.	
" 11	" ..	1776	E. A. McKee, Coaticook.	1 "	40	The F. F. Dally Co., Ltd., Hamilton.	
16	" ..	1777	W. S. Samson & Son, Windsor Mills.	1 "	40	Unknown	
16	" .	1778	W. B. Murray, Sherbrooke E.	1 "	40	Pure Gold Mfg. Co., Ltd., Hamilton.	
16	" ..	1779	Denault Grain & Prov. Co., Ltd., Sherbrooke, E.	1 "	32	Herron Leblanc, Montreal.	

SESSIONAL PAPER No. 14

WHITE PEPPER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Dr. V. P. LAVALLEE, INSPECTOR.				
	p. c.			
....	2 20	Pepper tissues only.	3940	Genuine.
.....	1·27	" "	3941	"
.....	2 08	" "	3942	"
....	1 09	" "	3943	"
....	1 43	" "	3944	"
....	1.13	" "	3945	"
....	1 68	" "	3946	"
....	2 19	" "	3947	"
....	2 06	" " and about 35 to 40 wheat starch.	3948	Adulterated.
....	2 40	Pepper tissues only.	3949	Genuine.
....	1 10	" "	3950	"
....	1 65	" "	3951	"
....	2 24	" "	3953	"
....	2 28	" "	3954	"
....	2 72	" "	3923	"
J. C. ROULEAU, INSPECTOR.				
....	2 91	Pepper tissues only.	1772	Genuine.
....	2·41	" " and foreign stone cells (cocoanut or olive stones.)	1773	Adulterated.
....	1 16	Pepper tissues only.	1774	Genuine.
Guaranteed pure	1 26	" "	1775	"
....	1 17	" "	1776	"
....	2 24	" "	1777	"
....	1 30	" "	1778	"
....	2 52	" "	1779	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF EASTERN TOWNSHIPS—				
1915.							
Feb. 17	Poivre Blanc.	1780	Kathan & Hopkins, Rock Island.	3pkgs.	30	Lymans, Ltd., Montreal.	.....
" 18	" ..	1781	Monty freres, Granby	1 lb.	40	Unknown.....	....
" 18	" ..	1782	W. D. Bradford, Granby	1 "	40	Pure Gold Mfg. Co, Ltd., Toronto.	....
Mar. 25	" ..	1783	A. E. Chabot, St. Hyacinthe.	1 "	40	Laporte Martin, Montreal.	F. H. Leblanc, St. Hyacinthe.
" 25	" ..	1784	E. A. Gendron, St. Hyacinthe.	¾ "	30	.....	E. Lafrance, St. Hyacinthe.
" 25	" ..	1785	Lassonde & freres, St Hyacinthe.	1 "	40	L. Chaput fils & Cie, Montreal.	.....
" 25	" ..	1786	J. B. St. Pierre, St. Hyacinthe.	1 "	40	J. V. Boudrias, Montreal.	.....
			DISTRICT OF MONTREAL—				
Jan. 26	White Pepper	62246	H. Legault, 89 Mullarky ave., Verdun.	1 lb.	45	.....	Labreque & Pellerin, Montreal.
" 26	" ..	62647	A. Forget, 211 Mullarky ave., Verdun.	1 "	40	.....	Unknown.....
" 26	" ..	62648	J. J. Bowen, 115 Gertrude st., Verdun.	1 "	30	.....	.....
" 26	" ..	62649	Nap. Rochon, 108 Gertrude St., Verdun.	1 "	40	.....	Kearney Bros., Montreal.
" 26	" ..	62650	N. Lalonde, 1 Church Ave., Verdun.	1 "	40	.....	The Nat. Coffee and Spice Co., Montreal.
Feb. 1	"	62651	J. Harvey, 82 Clande St., Verdun.	1 "	40	.....	L. Chaput fils et Cie, Montreal.
" 1	" ..	62652	R. W. Hadley, 35 Gordon Ave., Verdun.	1 "	40	.....	S. H. Ewing & Sons, Montreal.
" 2	" ..	62653	Dionne & Dionne, 4120 St. Cath. St. West, Westmount.	1 "	50	.....	" "
" 2	" .	62654	E. J. Quinn, 4201 St. Cath. St. West, Westmount.	3 tins.	39	McLarens, Ltd., Hamilton, Ont.	.....
" 3	" ..	62655	G. Corbo, 35 Notre Dame, St., Lachine.	1 lb.	40	.....	L. Chaput & fils, Montreal.
Mar. 9	" ..	62656	A. Beaudoin, 132 Delormier Ave., Montreal.	1 "	40	.....	Unknown .....
" 9	" ..	62657	I. Pelonsky, 10 Dorchester St. West, Montreal.	1 "	40	.....	J. Edelberg, Montreal.
" 9	" ..	62658	E. Arshmolf, 168 Clarke St., Montreal.	1 "	25	.....	" "
" 9	" ..	62659	I. Goodman, 11 Laganchetiere St. West, Montreal.	1 "	35	.....	M. Lavut, Montreal.
11	" ..	62660	Dutilly & frere, 586 Notre Dame St., Maisonneuve, Montreal.	1 "	40	.....	Herron Leblanc, Montreal.

SESSIONAL PAPER No. 14

WHITE PEPPER.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.				
	p. c.			
.....	1·12	Pepper tissues only.....	1780	Genuine.
.....	1·62	" " "	1781	"
.....	2·88	" " "	1782	"
.....	2·81	" " "	1783	"
.....	1·69	" " "	1784	"
.....	1·19	" " "	1785	"
.....	2·28	" " "	1786	"
D. J. KEARNEY, INSPECTOR.				
.....	1·78	Pepper tissues only.....	62646	Genuine.
.....	2·52	" " "	62647	"
.....	1·68	Pepper tissues and about 40 to 50% wheat and maize starches	62648	Adulterated.
.....	1·16	Pepper tissues only.....	62649	Genuine.
.....	2·19	" " "	62650	"
.....	1·07	" " "	62651	"
.....	1·55	" " "	62652	"
.....	1·10	" " "	62653	"
.....	1·06	" " "	62654	"
.....	2·34	" " "	62655	"
.....	2·23	" " "	62656	"
.....	2·19	" " "	62657	"
.....	1·64	" " "	62658	"
After purchase Vendor said it was Compound.	2·32	" and about 35 to 45% Maize Starch.	62659	Adulterated
.....	3·00	Pepper tissues only.....	62660	Genuine

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF VALLEYFIELD—	
1915.							
Feb. 1	White Pepper.	58211	F. Giroux, St. Johns, P.Q.	1 lb.	30	... ...	....
" 1	" ..	58212	E. D. Leblanc, "	1 "	30	J. V. Boudrias, Montreal.	.....
" 1	" ..	58213	J. B. Latour, "	1 "	40	" "	.....
" 1	" ..	58214	H. Dubois, "	1 "	40	S. H. Ewing & Sons, Montreal.	....
" 1	" ..	58215	A. Alexandre, "	1 "	40	Simard & Brossard, Montreal.	.....
" 5	" ..	58216	R. Lanctot, Valleyfield.	1 "	40	S. H. Ewing & Sons, Montreal.	.. ..
" 5	" ..	58217	A. Daoust, "	1 "	40	F. F. Dalley Co., Ltd.	... .
" 5	" ..	58218	W. J. McPherson, "	1 "	40	. .....	....
" 5	" ..	58219	Primeau freres, "	1 "	40	F. F. Dalley Co., Ltd.	... .
" 16	" ..	58220	W. Be t and, Buckingham.	1 "	40	S H. Ewing & Sons, Montreal.	.....
" 16	" .	58221	William O'Neill, "	1 "	40	F. F. Dalley Co., Ltd.	....
" 16	" ..	58222	Wm. Griffiths, "	3pkgs.	30	White Swan, S. & C. Co., Ltd.	.. ..
" 16	" ..	58223	J. A. D'Aoust, "	1 lb.	35	S. H. Ewing & Sons, Montreal.	... .
" 23	" ..	58224	J. E. Baillargeon, Farnham.	3pkgs.	30	Gorman Eckhart & Co., London, Ont.	....
" 23	" ..	58225	Ed. Bienvenue, "	1 lb..	40	White Swan, S. & C. Ltd.	... .
						DISTRICT OF OTTAWA—	
Jan. 12	White Pepper.	63562	P. Lapensee, Cornwall..	1 lb..	40	Unknown	Ford Bros., McGill street, Montreal.
" 12	" .	63563	M. M. Mulhern, Cornwall.	1 " .	40	. . . .	Mathewson's Sons, Montreal.
" 12	" .	63564	M. L. Smith, Cornwall.	1 " .	40	Gorman Eckert, London, Ont.	....
" 13	" .	63565	Fawthroys Bros., Corn-	1 " .	50	.....	Mathewson's Sons, Montreal.
" 28	" .	63566	John Hughes, Prescott.	1 "	40	Unknown.....	Unknown .....
" 28	" .	63567	Doyle Bros., Prescott..	1 " .	40	Dalton Bros , Toronto.	Gilmour & Co., Brockville.
" 28	" .	63568	J. H. Bradley, Prescott	1 " .	40	J. M. Lowes, Ltd., Toronto.	.. ..
" 28	" .	63569	McDermott & McCarthy, Prescott.	1 " .	40	Unknown	Unknown ....
" 28	" .	63570	C. Whitney & Son, Prescott	1 " .	40	Hamilton Coffee and Spice Co., Hamilton.	. ...

SESSIONAL PAPER No. 14

WHITE PEPPER.

Inspector's Report (Is not an expression of opinion).	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks, and Opinion of the Chief Analyst.
J. J. COSTIGAN, INSPECTOR.				
	p. c.			
..	1·09	Pepper tissues only.....	58211	Genuine.
.....	2·36	"	58212	"
.....	1·37	"	58213	"
.....	2·70	"	58214	"
.....	2·18	" and about 20 to 30 % Maize and Wheat Starches.	58215	Adulterated.
.....	2·68	Pepper tissues only.....	58216	Genuine.
.....	1·17	"	58217	"
.....	1·39	"	58218	"
.....	1·16	"	58219	"
.....	3·21	"	58220	"
.....	1·28	"	58221	"
.....	1·08	"	58222	"
.....	2·26	"	58223	"
.....	1·90	"	58224	"
.....	2·14	"	58225	"
J. A. RICKEY, INSPECTOR.				
.....	2·24	Pepper tissues only	63962	Genuine.
.....	1·66	"	63963	"
.....	0·97	"	63964	"
.....	1·15	"	63965	"
.....	1·02	"	63966	"
.....	3·08	"	63967	"
.....	2·85	"	63968	"
.....	1·08	"	63969	"
.....	1·95	"	63970	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF OTTAWA—							
1915.							
Jan. 28	White Pepper	63571	R. A. Scott & Co., Prescott.	1 lb.	40	C. H. Cochrane & Co., Ottawa.	
" 30	"	63572	R. G. Jamieson, Maxville.	1 "	40		H. N. Bate & Sons, Ottawa.
" 30	"	63573	Smillie & McDiarmid, Maxville.	1 "	50	Pure Gold Mfg. Co., Toronto.	
" 30	"	63574	P. Tracey, Maxville....	1 "	45	Unknown	
Feb. 4	"	63575	D. G. Cowan, 1227 Bank St., Ottawa.	1 "	40	The J. M. Lowes Co., Ltd., Toronto.	
" 4	"	63576	R. H. Beck, 1150 Bank St., Ottawa.	1 "	40	Dalton Bros., Toronto.	
DISTRICT OF KINGSTON—							
Feb. 1	White Pepper.	66511	W. E. Hopkinson, Kingston.	1 lb.	40	F. F. Dalley Co., Hamilton.	
" 3	"	66512	W. J. Nesbitt, Kingston	1 "	40	J. M. Lowes Co., Toronto	
" 3	"	66513	J. Culien, Kingston....	1 "	40		Andrew Maclean, Kingston.
3	"	66514	C. H. Pickering, Kingston.	1 "	60	Gorman Eckert Co., London.	
" 3	"	66515	Anderson Bros., Kingston.	1 "	40	J. M. Lowes Co., Toronto.	
" 15	"	66516	H. C. Hampton, Belleville.	1 "	40		J. Walmsley Co., Belleville.
" 15	"	66517	A. Kellaway, Belleville.	1 "	40	J. M. Lowes Co., Toronto.	
" 15	"	66518	J. H. P. Young, Belleville.	1 "	40	Pure Gold Mfg. Co., Toronto.	
" 16	"	66519	Thos. McIntosh, Cobourg.	1 "	40	Todhunter Mitchell, Toronto.	
" 16	"	66520	W. P. Platt, Cobourg..	1 "	40	"	
" 16	"	66521	Estate Hugh Crozier, "	1 "	38	Dalton Bros., Toronto	
" 16	"	66522	T. R. Harvey & Son, "	1 "	50	Todhunter Mitchel, Toronto.	
" 16	"	66523	F. H. Brown, Port Hope.	1 "	50	Pure Gold Mfg. Co., Toronto.	
" 16	"	66524	A. H. Jordan, Port Hope.	1 "	50	Gorman Eckert Co., London, Ont.	
" 17	"	66525	W. J. Roulty, Peterboro.	1 "	40	F. F. Dalley Co., Hamilton.	
DISTRICT OF TORONTO—							
Feb. 16	White Pepper	64675	Geo. Cowie, Richmond Hill.	1 lb.	40		Unknown
" 16	"	66476	Towns & Morris, Aurora	1 "	40		"

SESSIONAL PAPER No. 14

WHITE PEPPER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.				
	p.c.			
....	0 87	Pepper tissues only	63571	Genuine.
. ...	2 28	" "	63572	"
....	0 97	" "	63573	"
....	1 46	" "	63574	"
.. . .	1 06	" "	63575	"
....	2 41	" "	63576	"
JAS. HOGAN, INSPECTOR.				
....	1 58	Pepper tissues only.....	66511	Genuine.
....	1 81	" "	66512	"
....	1 35	" "	66513	"
....	3 48	" "	66514	"
....	3 57	" "	66515	"
. .. .	1 91	" "	66516	"
....	1 84	" " ..	66517	"
....	1 34	" "	66518	"
....	1 39	" " ...	66519	"
. .. .	1 14	"	66520	"
....	1 12	" "	66521	"
....	1 41	"	66522	"
....	1 15	"	66523	"
....	1 15	.....	66524	"
..... .	1 40	"	66525	"
H. J. DAGER, INSPECTOR.				
....	2 17	Pepper tissues only	66570	Genuine.
....	1 13	.....	66571	"

BULLETIN No. 314—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF TORONTO—							
1915.							
Feb. 16	White Pepper.	64677	Hamilton Bros, Newmarket.	1 lb.	30	... .	Thos. Kinnear Toronto.
" 16	"	64678	G. H. Knowles, Newmarket.	1 "	40	Todhunter Mitchell & Co. Toronto.	....
" 17	"	64679	A. Burrows, Sutton....	1 "	40	....	F. W. Humphrey Toronto.
" 17	"	64680	M. E. Hamilton "	1 "	35	... .	Unknown.....
" 18	"	64681	S. D. Corvelty, Oshawa.	1 "	40	....	" .....
" 18	"	64682	H. A. Ross, "	1 "	40	Todhunter Mitchell & Co., Toronto.	.....
" 18	"	64683	A. T. Lawler, Whitby..	1 "	40	....	Unknown.....
" 22	"	64684	H. M. Sealey, 106 Mutnal St., Toronto	1 "	40	J. M. Lowes Co. Ltd., Toronto.	.....
" 22	"	64685	C. Grant, 287 Gerrard St. east, Toronto.	1 "	35	Pure Gold Mfg. Co. Ltd., Toronto.	.....
" 24	"	64686	Groves Bros., 483 Church St., Toronto.	1 "	40	Todhunter Mitchell & Co., Toronto.	.. ..
" 24	"	64687	W. R. McGaw, 242 Arthur St., Toronto.	1 "	40	Pure Gold Mfg. Co. Ltd., Toronto.	... .
" 25	"	64688	J. Hutchinson, & Son Woodbridge.	1 "	40	.....	Unknown.....
" 25	"	64689	F. A. Bagg, Woodbridge	1 "	40	.....	" .....
DISTRICT OF HAMILTON—							
Mar. 2	White Pepper.	66854	A. Antie & Son, Galt ..	1 lb.	40	Litster's Pure Food Co., Ltd., Toronto	.....
" 2	" ..	66855	A. Graeb, Preston	1 "	35	....	Eby Blai's, Ltd., Toronto.
" 2	" .	66856	Mrs. E. Henry, Hespler	1 "	40	.. ..	Unknown...
" 2	" .	66857	J. F. Kohli, Hespler...	1 "	40	....	M. Masuret & Co., London.
" 3	" .	66858	B. Lango, Waterloo, Ont.	1 "	40	....	Unknown .....
" 3	" ..	66859	Geo. Faber, Berlin....	1 "	40	Litster's Pure Food Co., Ltd., Toronto.	..... .
" 9	" ..	66860	Geo. E. Taylor, Paris Station.	1 "	40	White Swans & C. Co., Ltd., Toronto.	....
" 10	" ..	66861	F. A. Miller, Burford.	1 "	40	... .	Unknown .....
" 10	" ..	66863	R. J. Welsh, Brantford.	1 "	40	....	Geo. Foster & Sons, Ltd., Brantford.
" 11	" ..	66864	Thos. Wood, Beamsville	1 "	40	MacLarens, Ltd., Hamilton.	... .
" 11	" ..	66865	W. G. Panter, Beamsville.	1 "	40	.....	Unknown .. ..
" 12	" ..	66866	Jas. P. Kerwin, Dundas	1 "	40	....	Geo. E. Bristol & Co., Ltd., Hamilton.

SESSIONAL PAPER No. 14

WHITE PEPPER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Total Ash.	Microscopical Examinations.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.				
	p.c.			
Labelled pure.....	2 72	Pepper tissues only.	64677	Genuine.
....	2 67	" "	64678	"
... .	1·28	" "	64679	"
... .	1·45	" "	64680	"
....	2·67	" and about 60 to 70 maize starch	64681	Adulterated
... .	1·07	" tissues only.....	64682	Genuine
....	2·16	" "	64683	"
Labelled pure.....	1·50	" "	64684	"
....	1·25	" "	64685	"
....	1·04	" "	64686	"
. .. .	1·26	" "	64687	"
....	0·99	" "	64688	"
.. ..	1·25	" "	64689	"
H. J. DAGER, INSPECTOR.				
.. ..	1·18	Pepper tissues only.	66854	Genuine.
Labelled, Lion, Pure ..	2·34	" "	66855	"
....	2·17	" "	66856	"
. ...	2·15	" "	66857	"
... .	2·58	" "	66858	"
. ...	1·52	" "	66859	"
....	1·13	" "	66860	"
....	1·39	" "	66861	"
....	2·82	" "	66862	"
....	1·04	" "	66864	"
....	1·93	" "	66865	"
....	3·71	" "	66866	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF HAMILTON—							
1915							
Mar. 12	White Pepper.	66867	D. Monro, 433 James St., North, Hamilton.	1 lb.	35	Young Windfield, Hamilton.	
" 12	"	66868	Mrs. E. Moore, 185 Park St., Hamilton.	1 "	35	" "	
" 13	"	66901	Wm. Carroll, 94 John St., South, Hamilton.	1 "	40	The F. F. Dalley Co., Ltd., Hamilton.	
DISTRICT OF WINDSOR—							
Feb. 16	White Pepper.	54703	Fred. Punney, London.	¾ lb.	30		Scandrett Bros., London.
" 16	"	54706	H. Beren, London.	1 "	40		" "
16	"	54707	A. R. Boug, London.	1 "	40	I. X. L. Spice & Coffee Co., London	
" 16	"	54708	Wyckoff & Gafney, London.	¾ "	30		E. Adams & Co., London.
" 16	"	54710	J. T. May, London	1 "	40	Gorman, Eckert Co., London.	
" 16	"	54711	R. A. Ross, London.	1 "	50	" "	
" 16	"	54713	Alfred Cane, London South.	1 "	35	I. X. L. Spice & Coffee Co., London	
" 17	"	54721	D. G. Gibb, St. Mary's.	1 "	40	Unknown	
" 17	"	54723	J. P. Rogers & Co., St. Mary's.	1 "	40	"	
" 9	"	63989	Moylan & Moylan, St. Thomas.	1 "	40	Gorman Eckert & Co., London, Ont.	
" 9	"	63992	D. H. McIntyre, St. Thomas.	1 "	40	" "	
" 9	"	63994	R. H. Cook, St. Thomas.	1 "	40	" "	
" 9	"	63996	Charles C. Raison, St. Thomas.	1 "	25		E. Adams Co., London, Ont.
DISTRICT OF MANITOBA—							
Jan. 27	White Pepper.	53141	Blue Ribbon, Ltd., Winnipeg.	3 pks.	30	Vendors	
" 27	"	53142	Campbell Bros. & Wilson, Winnipeg.	3 "	Nil.	"	
" 27	"	53143	Gold Standard Mfg. Co., Winnipeg.	3 "	"	"	
" 27	"	53144	Todhunter Mitchell Coffee Co., Winnipeg.	1 lb.	"	"	
" 27	"	53145	The Dyson Co., Winnipeg.	1 "	"		
	"	53146	The White Star Mfg. Co., Winnipeg.	3 pks.	"	Vendors	

SESSIONAL PAPER No. 14

WHITE PEPPER.

Inspectors Report. (Is not an expression of opinion.)	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.				
	p.c.			
	1·72	Pepper tissues only.	66867	Genuine.
	1·23	" "	66868	"
	1·44	" "	66901	"
JNO. TALBOT, INSPECTOR.				
	2·85	Pepper tissues only	54703	Genuine.
	2·94	" " and about 30 to 40 p.c. wheat starch.	54706	Adulterated.
"Sweetheart" Brand	1·03	Pepper tissues only	54707	Genuine.
	1·55	" "	54708	"
	1·17	" "	54710	"
	1·61	" "	54711	"
	2·41	" "	55713	"
	1·78	" "	54721	"
	1·17	" "	54723	"
	2·42	" "	63989	"
	2·00	" "	63992	"
Labelled pure.	1·76	" "	63994	"
	2·72	" "	63998	"
A. C. LARIVIERE, INSPECTOR.				
	1·14	Pepper tissues only	63141	Genuine.
	1·43	" "	63142	"
	1·35	" "	63143	"
	1·08	" "	63144	"
	1·71	" "	63145	"
	1·62	" "	63146	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cost.	Manufacturer.	Furnisher.
DISTRICT OF MANITOBA—							
1915.							
Jan. 28	White Pepper.	53147	The Jobin Marrin Co., Ltd., Winnipeg.	3 pks.	Nil.	.....	Todhunter Mitchell Co., Toronto.
Feb. 1	" ..	53148	H. Woodley, 470 Burrows Ave., Winnipeg.	3 " .	30	The White Star Mfg. Co., Winnipeg.	.....
" 1	" ..	53149	S. J. Deroche, 470 Burrows Ave., Winnipeg.	1 lb .	40	....	A. Macdonald & Co., Winnipeg.
" 2	" ..	53150	Wilton & Conley, 1322 Main St., Winnipeg.	3 pks.	30	Gorman, Eckert & Co., London.	....
" 2	" ..	53151	Moffett & Douglas, Selkirk Ave., Winnipeg.	3 " .	30	Gold Standard Mfg., Co., Winnipeg.	.....
" 3	" ..	53152	H. Carter, St. James. ..	3 " .	30	The White Star Mfg., Co., Winnipeg.	.. ..
" 3	" ..	53153	E. M. Neelands, St. James.	1 lb..	35	Gorman, Eckert Co., London, Ont.	.....
" 3	" ..	53154	N. Posner, St. James...	3 pks.	30	The White Star Mfg. Co., Winnipeg.	.....
" 4	" .	53155	Brown's Ltd., Portage-la-Prairie.	3 " .	40	Eby Blain, Toronto.	.....
DISTRICT OF SASKATCHEWAN -							
Jan. 26	White Pepper.	66302	R. Taylor & Co., Indian Head, Sask.	1 lb..	50	....	Campbell, Wilson & Strathdee, Regina.
" 26	" ..	66303	Halliday & Carlisle, Indian Head, Sask.	1 " ..	40	....	" " ..
" 27	" ..	66304	D. J. Craig, Worseley, Sask.	3 cans	30	Gold Standard Mfg Co., Winnipeg.	....
27	" ..	66305	Crozier Bros., Worseley Sask.	1 lb..	40	.....	Campbell, Wilson & Strathdee. Regina.
" 27	" ..	66307	W. P. Pocock, Worseley, Sask.	1 " ..	40	....	Cameron and Heap, Regina.
" 27	" .	66308	Magee & Thompson, Worseley, Sask.	1 " ..	40	....	Campbell Bros., & Wilson, Winnipeg.
" 27	" ..	66309	Claxton Bros. & Co., Grenfell, Sask.	1 " ..	50	....	Jobin & Marrin, Winnipeg.
" 27	" .	66311	Flemming & Bennett, Grenfell, Sask.	1 " ..	35	....	McDonald's Consolidated, Winnipeg.
" 27	" ..	66313	Greenless & Sons, Grenfell, Sask.	1 " ..	50	....	Jobin & Marrin, Winnipeg.
" 27	" ..	66315	Grenfell Trading Co , Grenfell, Sask.	1 " ..	50	....	Cameron and Heap, Regina.
" 27	..	66316	James Smith, Grenfell, Sask.	3 cans	30	White Star Mfg. Co., Winnipeg.	McDonald's Consolidated, Winnipeg.
27	..	66318	Whitewood Supply Co., Whitewood, Sask.	1 lb	40	Blue Ribbon, Ltd., Winnipeg.	.....
" 2	..	66320	J. J. Knowles & Co., Whitewood, Sask.	1 " ..	40	... ...	Codville Co. Ltd., Brandon

SESSIONAL PAPER No. 14

WHITE PEPPER.

Inspector's Report. (Is not an expression of Opinion.)	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.

Concluded.

	p. c.			
"Challenge" Brand.....	2·92	Pepper tissues only	53147	Genuine.
"White Star" Brand...	1·41	" "	53148	"
....	1·54	" "	53149	"
"Forest City" Brand...	2·20	" "	53150	"
.. ..	2·83	" "	53151	"
....	1·32	" "	53152	"
....	1·25	" "	53153	"
....	1·43	" "	53154	"
....	2·79	" "	53155	"

L. H. HALL, INSPECTOR.

... .	1·30	Pepper tissues only	66302	Genuine
....	1·14	" "	66303	"
.....	0·96	" "	66304	"
....	1·15	" "	66305	"
....	1·26	" "	66307	"
.....	1·22	" "	66308	"
.....	1·41	" "	66309	"
.....	1·98	" "	66311	"
.....	2·24	" "	66313	"
....	3·07	" "	66315	"
.....	1·41	" "	66316	"
.....	1·16	" "	66318	"
.....	1·29	" "	66328	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF SASKATCHEWAN—							
1915.							
Jan. 27	White Pepper.	66322	The Whitewood Trading Co., Whitewood, Sask.	1 lb	35	.....	Codville Co., Ltd., Brandon.
" 27	"	66324	W. J. Mackay, Moosomin, Sask.	1 " ..	50	....	Campbell Bros., & Wilson, Winnipeg.
DISTRICT OF ALBERTA—							
Mar. 12	White Pepper.	52085	Urquhart & Co., Ltd., Lacombe, Alta.	3 tins.	10	Gorman, Eckert & Co., London and Winnipeg.	....
" 12	"	52086	R. G. Gilmour, Lacombe, Alta.	1 lb..	40	Campbell, Wilson & Horne, Calgary.	.....
" 12	"	52087	A. M. Campbell, Lacombe, Sask.	3 tins.	30	Blue Ribbon, Ltd., Winnipeg.	....
" 12	"	52088	" " ..	1 lb..	40	Gorman, Eckert Co. Winnipeg.	... .
" 13	"	52089	A. Reid, Pownoka, Alta.	3 tins.	30	W. A. Jameson Coffee Co., Victoria, B.C.	..... .
" 15	"	52090	Lowry, Glamiele & Co., Leduc, Alta.	1 lb..	50	Campbell Bros. & Wilson, Winnipeg.	....
" 16	"	52091	Montgomery Bros., Wetaskiwin, Alta.	1 " .	40	" "	....
" 19	"	52092	John Irwin & Co., Calgary.	1 " ..	40	Tuxedo Spice Co., Calgary.	....
" 19	"	52093	Pryce Jones (Canada) Ltd., Calgary.	3 tins.	30	F. F. Dalley Co., Hamilton, Ont.	.....
" 19	"	52094	P. J. Moran, Calgary.	3 tins.	30	Alberta Empress Co., Ltd., Calgary.	.. . .
" 22	"	52095	Hudsons Bay Co., Calgary.	1 lb..	48	Tuxedo Mfg. Co., Calgary.	....
" 22	"	52096	" " "	3 tins.	38	E. R. Durke & Co., New York.	.....
" 22	"	52097	G. J. Wood, Calgary.	3 "	30	Tuxedo Mfg. Co., Calgary.	....
" 22	"	52098	J. A. Nolan, Calgary.	1 lb..	40	Blue Ribbon Ltd., Winnipeg.	.....
" 22	"	52099	S. G. Freeze, Calgary.	1 " ..	40	F F. Dalley Co., Hamilton.	.....
DISTRICT OF ROCKY MOUNTAINS—							
Feb. 1	White Pepper.	61744	J. A. Irving & Co., Nelson, B.C.	1 lb..	40	Empress Mfg. Co., Vancouver, B.C.	....
" 1	"	61745	Bell Trading Co., Nelson. B.C.	1 " ..	40	Wm. Baid & Co., Vancouver, B.C.	.....
" 6	"	61756	J. McIntyre & Son, Revelstoke, B.C.	½ " ..	30	Kelly Douglas & Co., Vancouver, B.C.	....
" 6	"	61757	C. B. Hume & Co, Revelstoke B.C.	1 " ..	50	Empress Mfg. Co., Vancouver, B.C.	....

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WHITE PEPPER.

Inspector's Report (Is not an expression of opinion).	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.				
.....	p. c. 1·40	Pepper tissues only.....	66322	Genuine.
....	1·10	" "	66324	"
A. W. R. MARKLEY, INSPECTOR.				
"Forest City" Brand....	2·27	Pepper tissues only...	52085	Genuine.
....	1·11	" "	52086	"
....	1·39	" "	52087	"
....	1·05	" "	52088	"
"Victoria" Brand.....	2·42	" "	52089	"
....	1·22	" "	52090	"
.. ..	1·21	" "	52091	"
....	1·13	" "	52092	"
....	1·03	" "	52093	"
....	1·11	" "	52094	"
....	1·23	" "	52095	"
Gauntlet Brand	1·53	" "	52096	"
....	1·33	" "	52097	"
....	1·40	" "	52098	"
.....	1·20	" "	52099	"
THOS. PARKER, INSPECTOR.				
.....	1·11	Pepper tissues only	61741	Genuine.
....	1·05	" "	61742	"
.....	0·95	" "	61743	"
....	1·07	" "	61744	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF ROCKY MOUNTAINS—							
1915.							
Feb. 6	White Pepper.	61758	G. W. Bell, Revelstoke, B.C.	1 lb..	40	F. F. Dalley Co., Hamilton.	.....
" 10	" .	61762	The S. A. F. E. Ltd, Salmon Arm, B.C.	1 " ..	40	.....	Leesor Dickie & Gross, Vancouver, B.C.
" 10	" .	61763	J. M. Toombs. Salmon Arm, B.C.	1 " ..	40	Kelly Douglas & Co. Vancouver, B.C.	.....
" 15	" .	61769	Munn Bros, Kamloops, B.C.	1 " ..	35	" "	....
" 15	" .	61770	Wilson Grocery Co , Kamloops, B.C.	1 " ..	40	Empress Mfg. Co., Vancouver, B.C.	. . . .
Mar. 16	" .	61786	Hunter Bros., Rossland, B.C.	3 tins.	40	Kelly Douglas, & Co., Vancouver, B.C.	....
" 16	" .	61787	T. P. Rogers, Rossland, B.C.	1 lb..	45	" " "	....
" 16	" .	61788	Agnew & Co., Rossland, B.C.	1 " ..	40	" " "	.....
" 16	" .	61791	Union Co-operative Association, Rossland, B.C.	3 tins	40	The F. F. Dalley Co., Hamilton.	....
DISTRICT OF VANCOUVER—							
Jan. 21	White Pepper.	55153	F. Wright, 645 Seymour St., Vancouver, B.C.	1 lb.	45	Kelly, Douglas & Co., Ltd., Vanc., B.C.	....
" 21	" ..	55154	City Cash Grocery, 712 Davie St., Vancouver, B.C.	1 " ..	35	Empress Mfg. Co., Vanc., B.C.	.. ..
" 21	" ..	55155	Burrard Grocery, Davie and Burrard Sts., Vancouver, B.C.	1 " ..	40	Wm. Braid & Co., Vanc., B.C.	.....
" 21	" ..	55156	M. T. Greene, Denman and Nelson Sts., Vancouver, B.C.	1 " ..	40	" " ..	.....
" 21	" ..	55157	H. A. Young, 1701 Robson St., Vancouver, B.C.	3 tins.	30	W. H. Malkin Co., Ltd., Vanc., B.C.	.....
" 26	" ..	55158	James Harkness, 676 Keefer St., Vancouver, B.C.	1 lb..	40	Empress Mfg. Co., Vanc., B.C.	.....
" 27	" ..	55159	Grant & Winton, 1900 Powell Ave., Vancouver, B.C.	1 " ..	40	Kelly, Douglas & Co., Ltd., Vanc., B.C.	... .
" 28	" ..	55160	David Spencer, Ltd., Vancouver, B.C.	1 " ..	18	Empress Mfg. Co., Vanc., B.C.	.....
" 28	" ..	55161	Henderson's Bay Co., Vancouver, B.C.	1 " ..	40	" " ..	....
Feb. 1	" ..	55162	Powell's Market, 58 Hastings St., Vancouver, B.C.	1 " ..	25	Kelly, Douglas & Co., Ltd., Vanc., B.C.	. . ..
" 3	" .	55163	E. L. Berry, Ladner, B.C.	1 " ..	35	" " ..	.....
" 1	" .	55164	Rubinowitz Dept. Stores, Steveston, B.C.	1 " ..	40	" " ..	....

SESSIONAL PAPER No. 14

WHITE PEPPER.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.				
	p. c.			
....	1·09	Pepper tissues only.....	61758	Genuine.
....	1·24	" "	61762	"
Nabob.....	0·98	" "	61763	"
"	0·94	" "	61769	"
.....	1·01	" "	61779	"
Nabob....	0·82	" "	61786	"
"	0·92	" "	61787	"
Columbia.	1·32	" "	61788	"
....	1·24	" " .. .	61791	"
E. J. MORGAN, INSPECTOR.				
"Nabob" Brand.....	1·00	Pepper tissues only	55153	Genuine.
....	0·87	" "	55154	"
....	1·09	" " ...	55155	"
....	1·08	" "	55156	"
"Malkin's Best" Brand.	1·08	" "	55157	"
.. ..	1·09	" "	55158	"
"Nabob" Brand	1·32	" "	55159	"
	1·14	" "	55160	"
	1·01	" "	55161	"
After purchase, vendor stated sample sold was compound pepper.	1·26	" "	55162	"
	0·90	" "	55163	"
"Nabob" Brand	0·97	" "	55164	"

Date of Collection.	Nature of Sample	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF VANCOUVER—							
1915.							
Feb. 4	White Pepper.	55165	Steveston Supply Co., Ltd., Steveston, B.C.	1 lb..	40	W. H. Malkin Co., Ltd., Vanc., B.C.	.....
" 8	" ..	55166	W. H. Walsh, Eburne. B.C.	1 " ..	40	Kelly, Douglas & Co., Ltd., Vanc., B.C.	....
" 10	" ..	55167	Ashwell's Dept. Store, Chilliwack, B.C.	1 " ..	40	Empress Mfg. Co., Vanc., B.C.	....
DISTRICT OF VICTORIA—							
Feb. 9	White Pepper.	62040	Windsor Grocery Co., 817 Govt. St., Victoria, B.C.	1 lb..	50	Pioneer Coffee and Spice Mills, Victoria, B.C.	.....
" 9	" .	62043	The West End Grocery Co., Ltd., 1002 Govt. St., Victoria, B.C.	3 tins.	30	Empress Mfg. Co., Vanc., B.C.	.....
" 9	" ..	62044	" " ..	1 lb.	50	" " ..	.....
" 10	" ..	62046	F. E. Plummer, 1118 Quadra St., Victoria, B.C.	1 " ..	45	W. A. Jameson Coffee Co., Victoria, B.C.	.....
" 10	" ..	62048	Erskine & Co., 861 Johnson St., Victoria, B.C.	1 " ..	40	Pioneer Coffee and Spice Mills, Victoria, B.C.	....
10	" ..	62049	Henry W. Driver, 856 Yates St., Victoria, B.C.	3 pkgs	30	Wm. Braid & Co., Vanc., B.C.	....
11	" ..	62051	Fairfield Grocery, 259 Cook St., Victoria, B.C.	3 " .	30	E. R. Durkee & Co., New York.	....
" 11	" ..	62053	Linden Grocery Co., Linden & May Sts., Victoria, B. C.	1 lb..	50	Empress Mfg. Co., Vancouver, B. C.	....
" 11	"	62056	Pioneer Coffee & Spice Mills, 641 Pembroke St., Victoria, B. C.	1 " .	35	....	R. G. Bedlington & Co., Vancouver, B. C.
" 11	" .	62057	" "	3pkgs.	20	....	" "
" 11	" ..	62058	W. A. Jameson Coffee Co., 754 Broughton St., Victoria B. C.	1 lb..	35	G. S Dunn & Co., Hamilton.	....
" 12	" ..	62059	Dixi H. Ross & Co., 1317 Govt. St., Victoria, B. C.	1 " .	50	.....	Wm. Braid & Co., Vancouver, B. C.
" 12	" ..	62063	Copas & Young, 631 Fort St., Victoria, B.C.	1 " .	30	Wm. Braid & Co., Vancouver, B. C.	....
" 12	" ..	62066	H. O. Kirkham & Co., 741 Fort St., Victoria, B.C.	1 " .	40	....	Kelly Douglas & Co., Victoria, B. C.
22	" ..	62069	Acton Bros., 1317 Douglas St., Victoria, B.C.	1 " .	40	Pioneer Coffee & Spice Mills, Victoria, B. C.	.....

SESSIONAL PAPER No. 14

WHITE PEPPER.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis. Total Ash.	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.				
	p. c.			
"Malkin's Best" Brand	1·07	Pepper tissues only.....	55165	Genuine.
"Nabob" Brand.....	1·00	" "	55166	"
"Empress" Brand.....	1·00	" "	55167	"
D. O'SULLIVAN, INSPECTOR.				
.....	1·12	Pepper tissues only	62040	Genuine.
"Empress" Brand.....	0·93	" "	62043	"
.....	1·02	" "	62044	"
.....	1·91	" "	62045	"
.....	1·30	" "	62048	"
"Braid's Best".....	1·08	" "	62049	"
"Dunkee's".....	1·31	" "	62051	"
.....	1·02	" "	62053	"
.....	1·13	" "	62056	"
"Empire" Brand.....	1·14	" "	62057	
.....	1·52	" "	62058	
.....	1·21	" "	62059	
.....	1·04	" "	62060	
.....	0·88	" "	62061	
.....	1·17	" "	62062	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF ROCKY MOUNTAINS—				
1914.							
Oct. 2	Pure Black Pepper.	61655	Cranbrook Trading Co., Ltd., Cranbrook, B.C.	¾ lb ..	30	Wilson Bros., Victoria, B.C.	
" 2	Pure White Pepper.	61656	" " ..	3 tins.	30	" " ..	
" 2	" ..	61657	" " ..	¾ lb ..	30	Georgeson & Co ,Calgary.	
" 2	Pure Black Pepper.	61658	" " ..	3 tins.	30	" " ..	
" 2	" ..	61659	Frank Provenzano., ...	¾ lb ..	35	W. A. Jameson, Coffee Co., Victoria, B.C.	
" 2	Pure White Pepper.	61660	" " ..	3 tins.	40	" " ..	
" 2	" ..	61661	Ira R. Manning, Cranbrook, B.C.	3 " .	40	The F.F. Dalley Co., Victoria, B.C.	
" 2	Pure Black Pepper.	61662	" " ..	3 " .	40	" " ..	
" 2	" .	61663	Ward & Harris, Cranbrook, B.C.	3 " .	40	" " ..	
" 2	Pure White Pepper.	61664	" " ..	3 " .	40	" " ..	
" 2	" ..	61665	J. Manning, Cranbrook, B.C.	3 " .	40	The W. H. Malkin Co., Vancouver, B.C.	
" 13	Pure Black Pepper.	61669	Trites Wood Co., Fernie, B.C.	3pkgs.	30	W. A. Jameson, Coffee Co., Victoria, B.C.	
" 13	Pure White Pepper.	61670	" " ..	3 " .	40	Gold Standard Mfg. Co., Winnipeg.	
" 13	" ..	61671	Crow's Nest Trading Co., Fernie, B.C.	3 " .	40	White Star Mfg. Co., Wingipeg.	
" 13	Pure Black. Pepper.	61672	" " ..	3 " .	30	" " .	
" 13	" ..	61673	P. Carosella, Fernie, B.C.	3 " .	30	Wilson Bros., Victoria, B.C.	
" 13	" ..	61674	Fernie Co operating Society, Fernie, B.C.	3 " .	30	Wm. Braid & Co., Vancouver, B.C.	
" 13	Pure White Pepper.	61675	" " ..	3 " .	30	" " ..	
" 26	Black Pepper.	61689	Joy Bros, Nelson, B.C..	3 bots.	30	G. F. Sutton Sons & Co., London, Eng.	
" 26	White Pepper.	61690	" " ..	3 tins.	40	Empress Mfg. Co., Vancouver, B.C.	
" 26	" " ..	61691	Star Grocery, Nelson, B.C.	3 " .	40	Kelly Douglas & Co., Vancouver, B.C.	
" 26	Black Pepper..	61692	" " ..	3 " .	40	" " ..	
" 26	" " ..	61693	M. Scully, Nelson, B.C.	3 "	30	Wm. Braid & Co., Vancouver, B.C.	
" 26	Pure Black Pepper.	61694	Bell Trading Co., Nelson, B.C.	3 " .	40	" " ..	
" 26	Pure White Pepper	61695	" "	3 " .	40	" " ..	
" 26	" ..	61696	" "	¾ lb..	30	" " ..	

SESSIONAL PAPER No. 14

GROUND PEPPER.

Inspect r's Report. (Is not an expression of opinion.)	Results of Analysis. Ash. Total.	Ash. Insoluble in Hcl. (sand).	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
THOS. PARKER, INSPECTOR.					
	p. c.	p. c.			
	6 40		Pepper tissues only	61655	Genu ne.
	1 04		" "	61656	"
	1 13		" "	61657	"
	6 24		" "	61658	"
	4 21		" "	61659	"
	1 71		" "	61660	"
	1 09		" "	61661	"
	5 75		" "	61662	"
	8 62	3 87	" "	61663	"
	1 08		" "	61664	"
	1 03		" "	61665	"
	6 38		" "	61669	"
	1 11		" "	61670	"
	1 27		" "	61671	"
	6 04		" "	61672	"
	5 80		" "	61673	"
	5 56		" "	61674	"
	1 64		" "	61675	"
	5 20		" "	61680	"
	0 96		" "	61690	"
	0 93		" "	61691	"
	4 89		" "	61692	"
	7 20	2 30	" "	61693	"
	5 05		" "	61694	"
	1 00		" "	61695	"
	1 31		" "	61696	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF ROCKY MOUNTAINS—				
1914.							
Oct. 26	Pure Black Pepper	61697	Bell Trading Co., Nelson, B.C.	¾ lb..	30	Wm. Braid & Co., Vancouver, B.C.	
" 26	" ..	61698	J. A. Irving & Co., Nelson, B.C.	3 Tins	40	Empress Mfg. Co., Vancouver, B.C.	
" 26	Pure White Pepper	61699	" "	3 "	40	" .	
			DISTRICT OF VANCOUVER—				
Sept. 28	Black Pepper	55067	Larseurs Grocery, 274 Pender St. east, Vancouver, B.C.	¾ lb..	30	Kelly Douglas & Co., Ltd., Vancouver, B.C.	
" 28	"	55068	Filion Ltd., 204 Carrall St. Vancouver, B.C.	¾ "	25	Empress Mfg. Co., Vancouver, B.C.	
" 29	"	55069	J. Lowenthall, 2243 Main St. Vancouver, B.C.	¾ "	30	Unknown	
" 29	"	55070	Efford Bros., 244 Broadway E. Vancouver, B.C.	¾ "	30	Empress Mfg. Co., Vancouver, B.C.	
" 29	"	55071	McCulloch Bros., 422 Hasting St. E. Vancouver, B.C.	¾ "	30	Kelly Donglas & Co. Ltd., Vancouver, B.C.	
" 29	"	55072	Kilborn & Munger, 2505 Main St. Vancouver, B.C.	¾ "	25	"	
" 30	"	55073	Gruchy & Carlaw, 5th Ave. & Granville St. Vancouver, B.C.	¾ "	30	Empress Mfg. Co., Vancouver, B.C.	
" 30	"	55074	S. Pritchard, 950 Robson St. Vancouver, B.C.	¾ "	30	Wm. Braid & Co., Vancouver, B.C.	
Oct. 5	"	55075	The Main Grocery Store, 1102 Commercial Drive Vancouver, B.C.	¾ "	30	The W. H. Malkins Co., Ltd., Vancouver, B.C.	
" 7	"	55076	Larsen & Anne, 601 Front St. New Westminister, B.C.	¾ "	30	Unknown.	
Sept. 30	White Pepper	55077	Mills & McAdam, 2039 4th Ave. W. Vancouver, B.C.	¾ "	30	Kelly Douglas & Co., Ltd., Vancouver, B.C.	
" 30	"	55078	A. C. Bartig, 2441 Granville St. Vancouver, B.C.	¾ "	30	"	
" 30	"	55079	Armour Macfarlane, 8th Ave. & Granville St. Vancouver, B.C.	¾ "	30	"	
" 30	"	55080	Fairview Grocery, 2242 Granville St. Vancouver, B.C.	¾ "	30	"	
" 30	"	55081	Gruchy & Carlaw, 5th Ave. & Granville St, Vancouver, B.C.	¾ "	30	Empress Mfg. Co , Vancouver, B.C.	

SESSIONAL PAPER No. 14

GROUND PEPPER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Ash		Microscopical Examination.	No. of Sample.	Remarks, and Opinion of the Chief Analyst.
	Total	Insoluble in Hcl. (Sand.)			

Concluded.

	p.c.	p. c.			
....	6·44	.....	Pepper tissues only.....	61697	Genuine.
....	4·52	....	" "	61698	"
... .	0·94	.....	" "	61699	"

E. J. MORGAN, INSPECTOR.

"Nabob" Brand.....	3·89	.....	Pepper tissues only . . .	55067	Genuine.
Empress "	3·60	. . .	" "	55068	"
Old Stock.....	5·58	...	" "	55069	"
Empress Brand	4·55	. ..	" "	55070	"
"Nabob" "	4·72	....	" " . . .	55071	"
"	3·87	. . .	" "	55072	"
Empress Brand.. . ..	3·81	. . .	" "	55073	"
....	6·49	..	" "	55074	"
Victoria Cross Brand...	5·64	.	" "	55075	"
	5·59	. .	" "	55076	"
"Nabob" Brand	0·82		" "	55077	"
	0·85		" "	55078	"
	1·06		" "	55079	"
	0·81		" "	55080	"
Empress Brand..	0·85		" "	55081	"

Date of Collection	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF VANCOUVER—				
1914.							
Sept. 30	White Pepper.	55082	W. A. Ferguson, 1028 Robson St. Vancouver, B.C.	¾ lb.	40	Wm. Braid & Co., Vancouver, B.C.	
" 30	"	55083	T. F. McDowell, 938 Granville St. Vancouver, B.C.	¾ "	30	"	
Oct. 5	"	55084	The Main Grocery Store, 1102 Commercial Drive Vancouver, B.C.	¾ "	30	Kelly Douglas & Co., Ltd., Vancouver, B.C.	
" 5	"	55085	Bird's Grocery, 1304 Commercial Drive, Vancouver, B.C.	¾ "	20	The W. H. Malkin Co., Ltd., Vancouver, B.C.	
" 7	"	55086	Annandale Supply Co., 641 Columbia St., New Westminister, B.C.	¾ "	30	Kelly Douglas Co., Ltd., Vancouver, B.C.	
			DISTRICT OF VICTORIA—				
Sept. 22	White Pepper.	61962	W. A. Jameson Coffee Co., 754 Broughton St., Victoria, B.C.	¾ lb.	20		G. S. Dunn & Co., Hamilton, Ont.
" 22	" "	61963	" "	¾ "	25		"
22	Black "	61964	" "	¾ "	20		"
" 22	" "	61965	" "	¾ "	15		"
" 22	White "	61966	The Windsor Grocery Co., 817 Government St., Victoria, B.C.	¾ "	35	Pioneer Coffee & Spice Mills, Victoria, B.C.	
" 22	Black "	61967	" "	¾ "	35	"	
22	White "	61971	Pioneer Coffee & Spice Mills, 641 Pembroke St., Victoria, B.C.	¾ "	30	Vendors	
" 22	" "	61972	" "	¾ "	25	"	
" 22	Black "	61973	" "	¾ "	25	"	
" 22	" "	61974	" "	¾ "	20	"	
" 23	" "	61977	E. B. Jones, 1802 Cook St., Victoria, B.C.	¾ "	30		W. A. Jameson Coffee Co., Victoria, B.C.
" 23	White "	61978	" "	¾ "	30		"
" 24	Black "	61981	The West End Grocery Co., Ltd., 1002 Government St., Victoria, B.C.	¾ "	25		Pioneer Coffee & Spice Mills, Victoria, B.C.
"	White "	61982	" "	¾ "	25		"

SESSIONAL PAPER No. 14

GROUND PEPPER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Ash. Total.	Ash. Insoluble in Hcl. (Sand.)	Microscopical Examination.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.					
	p. c.	p. c.			
....	1·00	..	Pepper tissues only	55082	Genuine.
....	0·95	. .	" "	55083	"
Columbia Brand.....	1·00	.	" "	55084	
Malkin's Best....	1·06	..	" "	55085	"
Columbia Brand.....	0·88	.....	" and wheat starch.	55086	Contains foreign matter. Adulterated.
D. O'SULLIVAN, INSPECTOR.					
. . . . .	1·88	.....	Pepper tissues only	61962	Genuine.
. . . . .	1·79	. . .	"	61963	"
. . . . .	3·89	....	"	61964	"
. . . . .	8·15	2·67	"	61965	Ash high. Sand and dirt
. . . . .	1·17	..	"	61966	Genuine.
. . . . .	7·25	2·75	"	61967	Ash high. Sand and dirt
Star Brand	0·88	.	"	61971	Genuine.
. . . . .	1·17	.	"	61972	"
Star Brand	7·28	3·13	"	61973	Ash high. Sand and dirt
. . . . .	6·89	2·92	"	61974	Genuine.
. . . .	5·34	.	"	61977	"
. . . . .	1·29	.	"	61978	"
. . . . .	5·59	.	"	61981	"
. . . . .	0·87	.	"	61982	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF VICTORIA—				
1914.							
Sept. 25	White Pepper.	61984	Acton Bros., Victoria, B.C.	3 tins.	30	Empress Mfg. Co., Ltd., Vancouver, B.C.	....
" 25	Black "	61985	" " ..	3 "	30	" ..	....
Oct. 3	White "	61986	Dixi H. Ross & Co., 1317 Government St., Victoria, B.C.	¾ lb..	30	Wm. Braid, Vancouver, B.C.	....
" 3	Black "	61987	" " ..	¾ "	30	" ..	....
" 3	White "	61990	Copas & Young, 631 Fort St., Victoria, B.C.	3 tins.	30	....	Wm. Braid & Co., Vancouver, B.C.
" 3	Black "	61991	" " ..	3 "	30	.....	" ..

SESSIONAL PAPER No. 14

GROUND PEPPER

Inspector's Report. (Is not an expression of opinion).	Results of Analysis. Ash. Total.	Ash. Insoluble in Hcl. (sand.)	Microscopical Examination	No. of Sample.	Remarks and Opinions of the Chief Analyst.
Concluded.					
	p. c.	p. c.			
Empress Brand.	0·79	.. ...	Pepper tissues only.....	61984	Genuine.
"	5·41	.. .	"	61985	"
....	1·01	.....	"	61986	"
....	4·74	.. ...	"	61987	"
....	0·99	.....	"	61990	"
Anti-Combine	5·69	.....	"	61991	"

APPENDIX F.

BULLETIN No. 315—TINCTURE OF OPIUM (LAUDANUM).

Ottawa, August 4, 1915.

J. U. Vincent, Esq.,
Deputy Minister Inland Revenue.

Sir,—I have the honour to hand you a report upon one hundred and twenty-seven (127) samples purchased by our inspectors as Tincture of Opium, generally known as Laudanum. These samples were procured throughout the different inspectoral districts of Canada in October, November and December of last year.

Tincture of Opium is one of the most important and widely used drugs of the pharmacopœia; and, containing as it does, a highly active ingredient (morphine) it follows that the greatest care should be had in its preparation and dispensing. It has been made the subject of inspection upon two previous occasions, by this Department. In 1899 (See Bulletin No. 60) fifteen (15) samples were examined, and of this number, five (5) were found to be below standard pharmacopœal requirements. Only one of these was so far deficient as to render it notably adulterated. In 1908 (see bulletin No. 168), thirty-one (31) samples were examined. Of this number sixteen (16) samples were found to be within standard limits; five (5) were above and ten (10) below pharmacopœal requirements. The discrepancies were, however, in most cases, not such as to make the article dangerous in use, although, in a drug of this kind, any variation beyond the limits fixed by authority of the pharmacopœia, should be regarded as serious. It must be apparent that, when the alkaloidal strength is too great, the patient is endangered, while, when too weak, the physician is unable to secure the results desired.

In the present inspection ninety-six (96) samples are found to meet pharmacopœal demands, and are passed as genuine.

It is to be noted here that the British Pharmacopœia requires that morphine should be present in Tincture of Opium to the amount of 0·75 of one per cent, a variation between the limits of 0·70 and 0·80 per cent, being allowed. This has reference to the Edition of 1898, which is the only edition recognized by the Adulteration Act. (Section 7a).

Our pharmacopœia, like those of other countries, is subjected to periodical revision, and as a matter of fact, the British Pharmacopœia was revised last year (13th July, 1914). The revised (1914) Edition is now legal authority in the United Kingdom, and I note that the Ontario College of Pharmacy has issued a circular to druggists, endorsing its recognition for Canada. Such action can, of course, carry no legal force, so long as the Adulteration Act remains unchanged. It is, perhaps, regrettable that our Act makes special mention of any particular edition of the British Pharmacopœia, since it is in the nature of things, that each later edition should supplant previous editions. This matter must secure attention by amendment of the Act at an early date.

Tincture of Opium is one of several drugs whose strength is altered in the revised edition of the Pharmacopœia; the alkaloidal strength being made one per cent, in terms of anhydrous morphine, instead of 0·75 per cent, as in the edition of 1898.

Eight samples of the present collection meet the requirments of this new standard for the article. It may be that the manufacturer had intention to furnish a tincture of this strength. If so, the fact should be made known upon the label; and it is evident that,

for some time to come, this particular tincture should be so labelled as to show whether it is intended to meet the standard of the pharmacopœia of 1898 or that of 1914.

In a strictly legal interpretation, these samples are adulterated, since the edition of 1898 is the only legal standard for Canada. It is however sufficiently evident that they meet the intention of the Act and they are treated accordingly. Twenty-three (23) samples must be regarded as illegal, nineteen (19) of these being too low in morphine content, and four (4) being too high. Among these the following call for special mention:—

No.	60722	contains	0·19	p.c.	morphine.
"	64620	"	0·44	"	"
"	48999	"	0·47	"	"
"	60143	"	1·25	"	"
"	63014	"	1.28	"	"
"	63546	"	1·26	"	"
"	61997	"	1·48	"	"

The first three samples contain very notable deficiency, and the last four samples as notable excess of morphine. It will be observed that, except in cases where the vendor is the manufacturer, the name of the manufacturer is not published. In most instances the vendor gave the name of a manufacturer, but careful enquiry proves that, in a majority of these cases, the manufacturer had furnished an opium concentrate, of assayed strength, from which the retail vendor prepared his tincture. I have caused several of these concentrates to be examined, and in every case have found them to be as represented by the manufacturer. They are usually from five to seven times as strong as the tincture, and directions are furnished for dilution so as to prepare the pharmacopœial tincture. This dilution being done by the retailer, it would evidently be improper to hold the manufacturer of the concentrate responsible for the character of the tincture as sold. The concentrate referred to is not strictly a pharmacopœial preparation, but when it is correctly assayed and labelled, it is a very desirable and convenient material for the preparation of a tincture. Responsibility for the quality of the tincture must rest with the vendor, and if through evaporation of the solvent or inaccuracy in measurement, he sells a tincture either too weak or too strong in morphine, the blame cannot be shifted to the manufacturer of a concentrate.

Of course, it follows that occasional inspection of the concentrates themselves must be made, not only in the interest of the public, but as a protection to the retail druggist.

I beg to recommend publication of this report as bulletion No. 315.

I have the honor to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

BULLETIN No. 315—TINCTURE OF OPIUM (LAUDANUM.)

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Result of Analysis. — Anhydrous Morphine present in 100 c.c.	No. of Sample.	Remarks and Opinion of the Chief Analyst. — (References are to the 1898 Edition of the British Pharmacopœia).
				Quantity.	Cents.	Manufacturer.	Furnisher.				
DISTRICT OF NOVA SCOTIA—R. J. WAUGH, INSPECTOR.											
1914.											
Dec. 15	Tincture of opium.	54201	Chas. Hutchins, Liverpool, N.S.	6 oz.	50	Vendor			0·77	54201	Meets B. P. requirements.
" 16	"	54202	H. F. Porter, Bridgewater.	6 "	1 00	"			0·69	54202	" "
" 29	"	54203	National Drug & Chemical Co. Halifax.	6 "	90	"			0·78	54203	" "
1915.											
Jan. 11	"	54204	E. M. McLeod, Halifax.	6 "	90	"			0·71	54204	" "
" 11	"	54205	G. McGillvary, Halifax.	6 "	75	"			0·79	54205	" "
DISTRICT OF NEW BRUNSWICK—J. C. FERGUSON, INSPECTOR.											
1914.											
Nov. 6	Tincture of opium.	59621	National Drug & Chemical Co. St. John.	6 oz.	90	Vendors			0·95	59621	Above B. P. strength as per B. P. of 1898. Meets requirements of revised edition.
" 11	"	59622	The Canadian Drug Co., Ltd. St. John.	6 "	90	"			0·72	59622	Meets B. P. requirements.
" 20	"	59623	Arthur J. Ryan, Fredericton.	6 "	1 20				0·70	59623	" "

Dec.	8	—	59624	R. J. Sharp, Sussex	6	oz.	90				1·03	59624	Above B. P. strength. Meets requirements of revised B. P.
"	8	"	59625	Leger Drug Co., Ltd., Moncton.	6	"	1 20	Vendors			0 72	59625	Meets B. P. requirements.

14—10½

DISTRICT OF PRINCE EDWARD ISLAND—WM. WEEKS, INSPECTOR.

Oct.	26	Tincture of opium.	60141	E. A. Foster, Charlottetown.	6	oz.	80				0·73	60141	Meets B. P. requirements.
"	27	"	60142	Johnson & Johnson, Charlottetown.	6	"	99				0·77	60142	" "
"	30	"	60143	Geo. E. Hughes, Charlottetown.	6	"	90				1 25	60143	Much above B. P. strength.
"	28	"	60144	The McKinnon Drug Co., Charlottetown.	6	"	90				0·83	60144	Meets B. P. requirements.

DISTRICT OF QUEBEC CITY—F. X. BELAND, INSPECTOR.

Nov.	10	Tincture of opium.	60719	Jos. Masson, 808 rue St Valier, Quebec.	6	oz.	60				0·76	60719	Meets B. P. requirements.
"	10	"	60720	J. B. Giroux, 587 rue St Joseph, Quebec.	6	"	75				0·69	60720	" "
"	10	"	60721	W. Prunette & Co., 158 rue St Joseph, Quebec.	6	"	1 50		Vendor		0·69	60721	" "
"	11	"	60722	A. Fournier, 569 rue St Jean, Quebec.	6	"	70	Unknown	Unknown.		0·19	60722	Much below B. P. requirements.
"	11	"	60723	A. E. Fraticonni, 570 rue St Jean, Quebec.	6	"	1 50	Vendor			0·74	60723	Meets B. P. requirements.
"	11	"	60724	A. L. Johnson, 568 rue St Jean, Quebec.	6	"	1 20				0·94	60724	Above B. P. strength for B. P. of 1898. Correct for revised edition.
"	12	"	60725	J. E. Dube, 42 rue St Jean, Quebec.	6	"	75				0·73	60725	Meets B. P. requirements.
"	12	"	60726	Henry Wolfe, 451 rue St Jean, Quebec.	6	"	60				0·81	60726	" "
"	12	"	60727	W. H. Rogers, 44 rue la Fabrique, Quebec.	6	"	1 50				0·75	60727	" "
"	12	"	60728	L. E. Martel, 55 rue St Joseph, Quebec.	6	"	70				0·75	60728	" "

BULLETIN No. 315—TINCTURE OF OPIUM (LAUDANUM).

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).	Result of Analysis. — Anhydrous Morphine present in 100 c.c.	No. of Sample.	Remarks and Opinion of the Chief Analyst. — (References are to the 1898 edition of the British acopœia).
				Quantity.	Cents.	Manufacturer.	Furnisher.				
DISTRICT OF QUEBEC PROVINCE—N. CADIEUX, T. GENDREAU, INSPECTORS.											
1914.											
Nov. 2	Tincture of opium.	214	Omer St. Amour, Ste Agathe des Monts.	3 oz.	60	Vendor			0·65	214	Nearly meets B. P. requirements, but somewhat too weak.
" 11	"	216	Eug. Fournier, Ste Jerome.	6 "	1 00				0·70	216	Meets B. P. requirements.
Dec. 26	"	243	H. Deschambault, Ste Therese.	6 "	1 00				0 68	243	" "
Nov. 25	"	2735	Dr. Jos. Gagnon, Montmagny.	6 "	1 20				0·76	2735	" "
DISTRICT OF THREE RIVERS—DR. V. P. LAVALLEE, INSPECTOR.											
Oct. 29	Tincture of opium.	2623	L. P. Normand, Three Rivers.	6 oz.	1 20	Vendor			0·85	2623	Meets B. P. requirements.
" 29	"	2624	I. A. Peltier, Three Rivers.	6 "	2 40				0·81	2624	" "
" 29	"	2639	R. W. Williams, Three Rivers.	6 "	75				0·98	2639	Above B.P. strength for B.P. of 1898. Correct for revised edition.
Nov. 4	"	3907	A. L. Boucher, Joliette.	6 "	1 13	Vendor			0·78	3907	Meets B. P. requirements.
" 4	"	3908	L. C. Rivest, Joliette	6 "	90	"			0·81	3908	" "

DISTRICT OF MONTREAL—D. J. KEARNEY, INSPECTOR.

Nov.	23	Tincture of opium.	62550	Moe Freedman, 1068 St. Lawrence Boul., Montreal.	6	oz.	1	20	Vendor				0·79	62550	Meets B. P. requirements.
"	23	"	62551	Lanctot & Brault, 820 St Lawrence Boul., Montreal.	6	"	1	20					0·65	62551	Nearly meets B. P. requirements, but somewhat too weak
"	23	"	62552	Alfred F. Larose, 2 Sherbrooke st. E., Montreal	6	"	1	20	Vendor				0·72	62552	Meets B. P. requirements.
"	23	"	62553	Wemfelds Pharmacy, 458 St. Lawrence Boul., Montreal.	6	"	1	20	"				0·71	62553	" "
"	24	"	62554	W. Lessard, 1490 Wellington st., Verdun	5	"	1	00					0·75	62554	" "
"	25	"	62555	Dr. V. Rheaume, 183 Church ave., Verdun.	6	"	1	20	Vendor				0·79	62555	" "
"	25	"	62556	Dr. S. Ste Marie, 447 Church ave., Verdun.	6	"	1	20					0·80	62556	" "
"	26	"	62557	Bouillon & Hirbour, 258 St. Denis St., Montreal	6	"	1	20	Vendor				0·71	62557	" "
"	27	"	62558	R. W. Bryson, Cor. Peel and St. Catherine Sts., Montreal.	6	"	1	20	"				0·77	62558	" "
"	27	"	62559	American Drug Store, 537 St. Catherine St., Montreal.	6	"	1	20					0·74	62559	" "

DISTRICT OF EASTERN TOWNSHIPS AND VALLEYFIELD—J. J. COSTIGAN, ACTING INSPECTOR.

Oct.	30	Tincture of Opium.	63011	H. E. Dalberger, Sherbrooke.	6	oz.	3	00					0·69	63011	Meets B.P. requirements.
"	30	"	63012	Pharmacie Cagnon Sherbrooke.	6	"	1	00					0·66	63012	" "
Nov.	01	"	63013	J. D. Brown, Danville	6	"	1	25					0·80	63013	" "
"	18	"	63014	E. C. Drolet, Coaticook	6	"	1	00					1·28	63014	Much above B.P. strength.
"	16	"	63015	F. F. Ansell, Sherbrooke	6	"	1	50					0·85	63015	Meets B.P. requirements.
"	17	"	62830	Dr. Weldon, Packing ham.	6	"	1	20					0·76	62831	" "
"	18	"	62832	P. O. Roberts, St. Johns	6	"	1	00					0·74	62832	" "
"	18	"	62833	Wight & Co., St. Johns	6	"		60					0·61	62833	Below B.P. requirements.

BULLETIN No. 315—TINCTURE OF OPIUM (LAUDANUM).

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion.)	Result of Analysis. — Anhydrous Morphine present in 100 c.c.	No. of Sample.	Remarks and Opinion of the Chief Analyst. — (References are to the 1898 Edition of the British Pharmacopœia.)
DISTRICT OF EASTERN TOWNSHIPS AND VALLEYFIELD—*Concluded.*											
1914.											
Nov. 20	Tincture of Opium.	62834	H. M. Davies, St. Lambert.	6 oz.	1 00				0·72	62834	Meets B.P. requirements.
Dec. 9	"	62835	James Fortune, Huntingdon.	6 "	90				0·71	62835	" "
DISTRICT OF OTTAWA—J. A. RICKEY, INSPECTOR.											
Oct. 31	Tincture of Opium.	63546	J. A. Johnston, Smiths Falls.	6 oz.	1 25				1·26	63546	Much above B.P. strength.
" 31	"	63547	L. A. Wilson, Smiths Falls.	6 "	1 25	Vendor			0·74	63547	Meets B.P. requirements.
Nov. 5	"	63548	Hull Medical Hall, Hull.	6 "	1 25				0·86	63548	" "
" 5	"	63549	H. Therin, Hull	6 "	1 25				0·77	63549	" "
" 6	"	63550	D. J. Johnstone, Ottawa	6 "	1 25	Vendor			0·83	63550	" "
" 6	"	63551	Allan & Cochrane, Ottawa.	6 "	1 25	Vendors			0·79	63551	" "
" 7	"	63552	E. M. Ahearn, Ottawa	6 "	1 25	Vendor			0·73	63552	" "
" 7	"	63553	E. J. Durocher, Ottawa.	6 "	1 25				0·79	63553	" "
" 7	"	63554	J. A. Mugrove, Ottawa.	6 "	1 25				1·07	63554	Above B. P. Strength for B. P. of 1898. Meets requirements of revised edition.
" 7	"	63555	N. W. Campbell, "	6 "	1 25	Vendor			0·77	63555	Meets B. P. requirements.

DISTRICT OF KINGSTON—JAMES HOGAN, INSPECTOR.

Nov.	2	Tincture of Opium.	61575	F. L. Hooper, Napanee	6 oz.	75	Vendor			0·84	61575	Meets B. P. requirements.
"	2	"	61576	T. B. Wallace, "	6 "	1 50	"			0·72	61576	" "
"	3	"	61577	D. M. Waters, Belleville	6 "	90	"			0·73	61577	" "
"	3	"	61578	O. G. Johns, Cobourg	6 "	1 05	"			0·67	61578	" "
"	4	"	61579	The Warne Drug Co., Peterboro.	6 "	90	"			0·67	61579	" "

DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.

Nov.	16	Tincture of Opium.	64612	A. H. Johnson, Collingwood	6 oz.	65				0·73	64612	Meets B. P. requirements.
"	17	"	64613	Geo. Monkman, Barrie	6 "	75				0·65	64613	Nearly meets B. P. requirements but somewhat too weak.
"	18	"	64614	C. A. Nettleton, Penetang.	6 "	1 20				0·70	64614	Meets B. P. requirements.
"	19	"	64615	G. W. Gerie, Midland	6 "	75	Vendor from concentrated.			0·73	64615	" "
"	19	"	64616	H. Ball, Orilla	6 "	1 20				0·66	64616	Nearly meets B. P. requirements but slightly too weak
"	23	"	64617	Wm. Crossland, Barrie	6 "	1 25	Vendor			0·76	64617	Meets B. P. requirements.
"	25	"	64618	Geo. H. Hannah, 221 Spadina ave., Toronto	6 "	90	"			0·70	64618	" "
"	25	"	64619	W. H. Anderson, 699 Dundas st., Toronto	6 "	1 20				0·72	64619	" "
"	25	"	64620	R. P. Weeks, 186 Wilton ave., Toronto.	6 "	1 00				0·44	64620	Below B. P. requirements.

DISTRICT OF HAMILTON—H. J. DAGER, ACTING INSPECTOR.

Nov.	2	Tincture of Opium.	64547	T. F. & T. J. Brown, Orangeville	6 oz.	90				0·61	64547	Below B. P. requirements.
"	2	"	64548	Parker & Co., 368 2nd Ave. E., Owen Sound	6 "	75				0·63	64548	" "
"	4	"	64549	J. Paterson, Warton	6 "	75				0·61	64549	" "
"	8	"	64551	H. G. Hunter, Walkerton	6 "	90				0·61	64551	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Result of Analysis. — Anhydrous Morphine present in 100 c.c.	No. of Sample.	Remarks and Opinion of the Chief Analyst. — (References are made to the 1898 edition of the British Pharmocopœia.)
				Quantity.	Cents.	Manufacturer.	Furnisher.				
DISTRICT OF WINDSOR—JOHN TALBOT, INSPECTOR.											
1914											
Nov. 4	Tincture of Opium.	63948	W. S. McDonald, Tillsonburg.	9 oz.	2 25				0·59	63948	Below B. P. requirements.
" 4	"	63956	J. Austen & Co., Simcoe.	6 "	1 20				0·63	63956	" "
" 5	"	63964	E. H. Jackson, Simcoe.	6 "	1 20				0·77	63964	Meets "
" 6	"	63968	J. B. Richards & Co., Aylmer.	6 "	75				0·68	63968	" "
" 6	"	63969	Em. A. Caughell..	6 "	90	Vendor.			0 96	63969	Above B. P. strength for edition of 1898. Correct for revised edition of 1914.
" 27	"	63977	W. E. Saunders & Co., London.	6 "	75	"			0·71	63977	Meets B. P. requirements.
DISTRICT OF MANITOBA—A. C. LARIVIERE, INSPECTOR.											
Oct. 30	Tincture of Opium.	48991	J. K. Hill, Portage-la-Prairie.	6 oz.	1 25				0.67	48991	Meets B. P. requirements.
" 30	"	48992	Portage Pharmacy, Portage-la-Prairie.	6 "	1 50				0.72	48992	" "
Nov. 3	"	48993	Clements Drug Store, Brandon.	6 "	1 50				0·68	48993	" "
" 3	"	48994	McCulloughs Drug Store, Brandon.	6 "	1 25				0.83	48994	" "
" 4	"	48995	Robertson & Co., Brandon.	6 "	50				0·93	48995	Above B. P. strength for B. P. of 1898. Correct for revision of 1914.

"	16	"	48996	Saunders Drug Store, Carman.	6	"	1 25				0·76	48996	Meets B. P. requirements.
"	12	"	48997	Gladstone Drug Co., Gladstone.	6	"	1 25				0·70	48997	" "
"	16	"	48998	St. James Pharmacy, St. James.	6	"	1 50				0·72	48998	" "
"	17	"	48999	W. H. C. Gibbs, Selkirk	6	"	2 10				0·42	48999	Below B. P. requirements.
"	17	"	49000	R. H. Gilbully, Selkirk.	6	"	1 80				0·73	49000	Meets B. P. requirements.

DISTRICT OF SASKATCHEWAN—L. H. HALL, INSPECTOR.

Oct.	25	Landsmere.	64064	A. Dollnage Ltd., Saskatoon.	6	oz.	2 10	Vendor			0·86	64064	Meets B. P. requirements.
"	28	"	64065	Central Drug Store, Saskatoon.	6	"	1 50	"			0·55	64065	Below B. P. requirements.
"	31	"	64066	A. Dunlan, Regina.	6	"	1 50	"			0·69	64066	Meets B. P. requirements.
Nov.	3	"	64067	Dr. Boyd, Penne	6	"	75				0·77	64067	" "
"	2	"	64080	T. W. Bradley, Mortlack	6	"	1 50	Vendor.			0 91	64080	Above B. P. strength for edition of 1898. Correct for revision of 1914.

DISTRICT OF ALBERTA—A. W. R. MARKLEY, INSPECTOR.

Nov.	18	Trustees of Opera.	52038	Macfarlane Drug Store, Calgary	6	oz.	1 00	Vendor			0·71	52039	Meets B. P. requirements.
"	28	"	52040	The Palace Pharmacy, Seattle	6	"	1 00				0·70	52040	" "
"	28	"	52041	H. W. Johnston, Camrose.	6	"	1 00	Vendor			0 67	52041	" "
"	28	"	52042	T. F. Ball, Wetaskiwin	6	"	1 50				0 73	52042	" "
"	27	"	52043	[illegible] Pharmacy, Lacombe	6	"	75	Vendor			0·54	52043	Below B. P. requirements.

DISTRICT OF ROCKY MOUNTAINS—THOS. PARKER, INSPECTOR.

Nov.	30	Landsmere.	61722	A. F. Robbins, Merritt	6	oz.	1 25				0·82	61723	Meets B. P. requirements.
"	28	"	61734	J. B. Clements, Kamloops.	6	"	1 25				0 81	61735	" "
"	29	"	61736	A. Galloway, Kamloops	6	"	1 25				0 70	61736	" "

BULLETIN 315.—TINCTURE OF OPIUM (LAUDANUM).

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Result of Analysis. — Anhydrous Morphine present in 100 c.c.	No. of Sample.	Remarks and Opinion of the Chief Analyst. — (References are to the 1898 Edition of British Pharmacopœia.
				Quantity.	Cents.	Manufacturer.	Furnisher.				
DISTRICT OF ROCKY MOUNTAINS—*Concluded.*											
1914.											
Dec. 1	Laudanum.	61739	Canada Drug Co., Nelson.	6 oz.	1.50				0·77	61739	Meets B.P. requirements.
" 1	" ..	61740	Rutherford Drug Co., Nelson.	6 "	1.50				0·61	61740	Below B. P. requirements.
DISTRICT OF VANCOUVER—E. J. MORGAN, INSPECTOR.											
Oct. 31	Tincture of Opium.	55141	C. H. McFarlane, Eburn	6 oz.	1.50				0·77	55141	Meets B. P. requirements.
Nov. 2	" ..	55142	Campbells Ltd., Granville & Hastings, Vancouver.	6 "	1.50				0·72	55142	" "
" 2	" ..	55143	Woods Pharmacy, 601 Hastings, St., Vancouver.	6 "	1.20				0·66	55143	Nearly meets B. P. requirements. Slightly too weak.
" 2	" ..	55144	Vancouver Drug Co., 405 Hastings St., Vancouver.	6 "	1.50				0·72	55144	Meets B. P. requirements.
" 2	" ..	55145	Marrett & Reid, 157 Hastings St., Vancouver.	6 "	2.00	Vendors			0·77	55145	" "
" 2	" ..	55146	E. T. Knowlton, 15 Hastings St., Vancouver.	6 "	2.50				0·76	55146	" "
" 2	" ..	55147	Woodward Dept. Stores, Vancouver.	6 "	1.25	Vendors			0·53	55147	Below B. P. requirements.

	2		55148	MacLennans Drug Store, 750 Columbia St., New Westminster.	6 oz.	1.50	"				0·74	55148	Meets B. P. requirements.
	3		55149	H. Ryall, 701 Columbia St., New Westminster.	6 "	1.00					0·68	55149	" "
	3		55150	D. T. Curtis & Co., 659 Columbia St., New Westminster.	6 "	1.50					0·81	55150	" "

DISTRICT OF VICTORIA—D. O'SULLIVAN, INSPECTOR.

Nov.	12	Tincture Opium.	61996	G. A. Fraser & Co., 912 Govt. St., Victoria.	6 oz.	1.50	Vendor				0·73	61996	Meets B. P. requirements.
	12		61997	F. J. Williams, 613 Fort St., Victoria.	6 "	1.50					1·48	61997	Much above B. P. strength.
	12		61998	D. E. Campbell, Cor. Fort & Douglas St., Victoria.	6 "	1.50					0·82	61998	Meets B. P. requir ments.
	12		61999	W. S. Terry, 705 Fort St., Victoria.	6 "	.75					0·71	61999	" "
	12		62000	G. U. Bowes, 1228 Govt. St., Victoria.	6 "	1.50					0·79	62000	" "

APPENDIX G.

BULLETIN No. 316—NATIVE WINE.

OTTAWA, July 8, 1915.

J. U. VINCENT, Esq.,
Deputy Minister Inland Revenue,

SIR,—I beg to submit herewith a report upon one hundred and eighty seven (187) samples purchased as *Native Wine*, in January, February and March of this year. These have been obtained at various points throughout the Dominion, and it may be fairly assumed that they represent the article as sold in Canada.

No extensive inspection of Native Wine has been made by this Department since 1908 (See Bulletin No. 160). Meantime the article has been tentatively and partially defined by Order in Council of February 8, 1911 as follows:

> 1. Wine is the product of the normal alcoholic fermentation of the juice of sound ripe grapes, neat, or variously modified, and followed by a proper cellar treatment.
>
> 2. All beverages sold or offered for sale as Wine shall be distinctly labelled to show the place of their production; and shall meet the requirements for wine, which are established by law in the place of their production.
>
> 3. Wine made in any part of Canada shall be labelled in such a way as to show the locality in which it has been produced. The specific name of such locality together with the names of the makers, shall be held to be a legal description of the article.
>
> NOTE.—The defining of types of Canadian made Wines is postponed until sufficient data have been secured.

The present inspection has for one chief object, an attempt to secure data which might serve to classify the various types of native wines. Many of these are called ports, others evidently aim at the claret type. Most of them are merely described as *Wine*; and a few of these are fairly dry; i.e. contain but little residual sugar.

Of the samples herein reported forty (40) are received in bottles which bear labels, having the name of the manufacturer and the place of production printed thereon, thus meeting requirements of subsection 3 above. These I have indicated as properly labelled. Several samples are distinguished by a monogram or private marks, which may possess a meaning to the initiated, but cannot be held as fulfilling the requirments of the Order in Council.

Most of these samples are supplied in bottles bearing no label; or having a label on which the name of manufacturer and place of production does not appear. In this matter they fail to meet legal requirements. It is of course, quite possible that the original container (barrel or keg) in which the shipment was made, may have been labelled in such a way as to show where and by whom manufactured. This information should, however, appear upon each package sold at retail; the intention being to inform the consumer in the matter.

One sample (No. 60760) is labelled *Unfermented Port.* Such a name is, of course, a contradiction in terms. Unfermented grape juice is possible; unfermented *Port* is impossible. A port wine from which the alcohol had been removed might, correctly enough, be described as dealcoholized port.

Two other samples are grape juice and not wine. One of these is plainly labelled grape juice, and should not have been accepted by the inspector as a wine.

This report is intended to furnish information regarding native wines, and to inform the public as to the character of this article as found on our markets. Your advisory board will be able, it is hoped, in the light of the data herein placed on record, to make recommendations in the matter of classification of wines which shall serve to give greater definiteness and clearer meaning to such terms as Canadian Port, Canadian Sherry, Canadian Claret, etc.

Meantime, I would respectfully suggest its publication as Bulletin No. 316.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion).	Specific Gravity. Of Wine.	Specific Gravity. Of Distillate
DISTRICT OF NOVA SCOTIA—										
1915.										
Feb. 17	Native Wine.	64101	Kelley & Glassy, Halifax, N.S.	3 pts.	50	Niagara Falls Wine Co.	Mfrs		1·0347	0·9819
" 17	"	64102	A. Monaghan & Co., Halifax, N.S.	3 "	45	Stamford Park Wine Co, Niagara Falls.	"		1·0430	0·9824
" 17	"	65103	Jas. Scott & Co., Halifax, N.S.	3 "	40	Niagara Falls Wine Co.	"		1·0252	0·9813
" 18	"	64104	T. F. Courtney & Co., Halifax, N.S.	3 "	40	T. G. Bright & Co., Niagara Falls.	"	Sold as Native Port.	1·0595	0·9865
" 18	"	64105	E. Donahoe & Son, Halifax, N.S.	3 "	45	"	"		1·0274	0·9866
" 19	"	64106	Dillon Bros., Halifax, N.S.	3 "	40	"	"		1·0208	0·9808
" 19	"	64107	Cahill & Co., Halifax, N.S.	3 "	45	"	"		1·0253	0·9808
" 19	"	64108	Simon & Fraser, Halifax, N.S.	3 "	45	Unknown	E. Donahoe, Halifax, N.S.		1·0234	0·9798
" 22	"	64109	Grace & Castonguay, Halifax, N.S.	3 "	40	T. G. Bright & Co., Niagara Falls.	Mfrs		1·0198	0·9796
" 22	"	64110	John Tobin & Co., Halifax, N.S.	3 "	40	"	"		1·0234	0·9808
DISTRICT OF NEW BRUNSWICK—										
Jan. 29	Native Wine.	59666	Comeau & Sheehan, St. John, N.B.	3 pts.	90	T. G. Bright Co., Niagara Falls.			1·0256	0·9808
" 29	"	59667	W. E. McIntyre, Ltd., St. John, N.B.	3 "	75	"			1·0259	0·9809
Feb. 1	"	59668	Foster & Co., St. John, N.B.	3 "	75	Pelee Wine Co., Brantford.		St. Augustine.	1·0536	0·9808
" 1	"	59669	" "	3 "	60	"		Concord	1·0723	0·9881
" 3	"	59670	R. Sullivan & Co., St. John, N.B.	3 "	75	Ont. Grape Growing and Wine Mfg. Co., St. Catherines			1·0633	0·9840

SESSIONAL PAPER No. 14

NATIVE WINE.

Results of Analysis.

Alcohol.			Grammes per 100cc.											
								Acidity.						
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert Sugar.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. tube. Direct.	Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.	Preservatives.	Dyes.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH, INSPECTOR.														
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		p. c.	p. c.	p. c.				
11·69	14·46	25·34	13·54	10·71	2·96	0·200	−11·0	0·570	0·081	0·469	None.	. . .	64101	
11·31	13·99	24·52	15·60	13·54	2·06	0·174	−20·4	0·669	0·073	0·578	Present.		64102	
12·12	14·98	26·25	11·28	8·36	2·92	0·272	−12·0	0·594	0·114	0·452	None.	.	64103	
8·29	10·30	18·04	18·70	16·62	2·08	0·152	−16·6	0·867	0·330	0·455	Trace	.	64104	
12·69	15·68	27·48	12·06	8·42	3·64	0·256	− 3·6	0·600	0·120	0·450	None		64105	
13·50	15·44	27·07	10·31	7·08	3·23	0·304	− 6·6	0·603	0·116	0·458	"	.	64106	
12·50	15·44	27·07	11·39	8·63	2·76	0·258	−12·4	0·558	0·111	0·420	"		64107	
13·27	16·38	28·70	11·23	7·74	3·49	0·238	− 3·8	0·591	0·098	0·469	"	.	64108	
13·46	16·61	29·11	10·35	6·89	3·46	0·286	− 5·8	0·579	0·121	0·428	"		64109	
12·54	15·49	27·15	10·90	7·98	2·92	0·291	−10·0	0·567	0·117	0·421	"		64110	
JNO. C. FERGUSON, INSPECTOR.														
12·50	15·44	27·0[illegible]	11·58	7·91	3·61	0·285	− [illegible]·6	0·678	0·121	0·[illegible]	None.		[illegible]	
12·42	15·35	26·90	11·57	8·37	3·20	0·266	− 8·4	0·645	0·08[illegible]	0·[illegible]	"		[illegible]7	
12·50	15·44	27·07	18·91	15·20	3·71	0·218	12·8	0·591	0·137	0·[illegible]	"		[illegible]	
7·47	8·92	15·63	21·77	18·10	3·67	0·127	15·4	0·672	0·27[illegible]	0·[illegible]	"		[illegible]	
10·09	12·49	21·89	20·44	17·59	2·85	0·177	50·6	0·819	0·[illegible]	0·[illegible]	Present		[illegible]9	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF NEW BRUNSWICK—										
1915.										
Feb. 3	Native Wine.	59671	R. Sullivan & Co., St. John, N.B.	3 pts.	1 50	Ont. Grape Growing and Wine Mfg. Co., St. Catherines.	.....	Golden Diana.	1·0617	0·9819
" 3	"	59672	" " ..	3 bots.	2 70	" ..	.....	7 year Old Port.	1·0598	0·9808
" 4	"	59673	P. M. O'Neil, St. John, N.B.	3 pts.	90	Stamford Park Wine Co., Niagara Falls.	.....	.....	1·0544	0·9828
" 4	"	59674	" " ..	3 bots.	1 20	" .	.....	Gold Medal Port.	1·0440	0·9821
" 9	"	59675	T. H. Haley, St. John, N.B.	3 pts.	1 00	T. G. Bright & Co., Niagara Falls.	.....	Concord ..	1·0254	0·9806
DISTRICT OF QUEBEC CITY—										
Jan. 20	Vin Canadien.	60754	Arthur Drolet, 712 Rue St. Valier, Quebec.	3 pts.	90	Stamford Park Wine Co.	.....	.....	1·0388	0·9832
" 20	"	60755	" " ..	3 "	90	T. Bright Co., Niagara Falls.	.....	.....	1·0236	0·9813
" 20	Vin Dimond.	60756	T. A. Bedard, 728 Rue St. Valier, Quebec.	3 "	1 20	" " ..	.....	Diamond.	1·0307	0·9825
" 20	Vin Concord.	60757	" " ..	3 "	1 50	" " ..	.....	Concord ..	1·0320	0·9815
" 21	"	60758	O. Lacroix, 19 Rue St. Joseph, Quebec.	3 "	1 00	Niagara Wine.	.....	.....	1·0284	0·9819
" 21	Vin Canadien.	60759	" " ..	3 "	80	A. Toussaint & Cie.	.....	Competition.	1·0455	0·9866
" 21	Unfermented.	60760	" " ..	3 "	1 50	The Turner Co., Ltd., Toronto.	.....	.....	1·0821	0·9999
" 21	Vin Canadien.	60761	Cantin & Frère, 271 Rue St. Joseph, Quebec.	3 "	1 20	A. Toussaint & Cie., Quebec.	.....	.....	1·0263	0·9844
" 22	Niagara .	60762	Myrand & Pouliot, 70 Rue de la Couronne, Quebec.	3 "	1 00	T. Bright Co., Niagara Falls.	N. Rioux & Cie.	..	1·0420	0·9815
" 22	Port X...	60763	" " .	3 "	66	A. Toussaint & Cie., Quebec.	.....	Port X...	1·0214	0·9810

SESSIONAL PAPER No. 14

NATIVE WINE.

Results of Analysis.															
Alcohol.			Grammes per 100cc.												
By Weights.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert Sugar.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. tube Direct.	Acidity.			Preservatives.	Dyes.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
								Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.				
Concluded.														
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.				
11·71	14·49	25·39	20·66	17·91	2·75	0·157	−34·8	0·876	0·089	0·765	None.	..	59671	Properly labelled.
12·52	15·47	27·12	20·46	17·73	2·73	0·191	30·8	0·681	0·112	0·542	Present.	..	59672	..
11·00	13·62	23·86	18·30	16·33	1·97	0·166	−18·0	0·606	0·068	0·521	"	..	59673	..
11·51	14·24	24·95	15·79	13·56	2·23	0·165	−19·0	0·642	0·069	0·555	..	..	59674	..
12·69	15·68	27·45	11·49	8·54	2·82	0·242	11·6	0·573	0·102	0·445	None	..	59675	..
F. X. W. E. BELAND, INSPECTOR.														
10·69	13·24	23·21	14·41	11·15	3·26	0·172	13·4	0·840	0·125	0·684	None	None	60754	..
12·15	15·02	26·33	10·95	7·20	3·75	0·212	7·2	0·585	0·055	0·516	"	"	60755	..
11·23	13·90	24·36	12·48	7·77	4·71	0·308	0·2	0·660	0·130	0·500	..	..	60756	..
12·00	14·84	26·00	13·08	8·39	4·69	0·220	5·6	0·549	0·058	0·476	..	..	60757	..
11·69	14·46	25·31	12·04	7·53	4·51	0·268	6·0	0·627	0·065	0·546	..	Present.	60758	..
8·21	10·21	17·89	15·27	4·60	..	0·156	20·4	0·630	0·108	0·505	..	..	60759	..
0·05	0·07	0·12	21·36	17·30	4·06	0·280	−18·0	0·704	0·031	0·555	..	..	60760	Labelled "Unfermented (?)."
9·79	12·13	21·27	10·84	7·82	3·02	0·220	3·6	0·531	0·064	0·451	..	..	60761	..
12·00	14·84	26·00	15·68	13·16	2·52	0·252	6·2	0·548	0·072	0·468	..	..	60762	..
10·08	12·49	21·89	9·68	7·96	1·72	0·168	2·6	0·740	0·082	0·477	..	..	60763	..

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF QUEBEC PROVINCE—										
1915.										
Jan. 26	Vin Canadien.	3760	G. & Ed. Couture, Levis.	3 bots.	1 20	Ont. Grape Growing & Wine Mfg. Co.	.....	.....	1·0689	0·9880
" 26	" ..	3761	" " ..	3 "	75	" " ..	.....	.....	1.0620	0·9836
" 27	" ..	3767	J. A Gagnon & Fils., Levis.	3 "	35	A. Toussaint Cie., Quebec.	.....	.....	1·0179	0·9812
" 27	" ..	3768	" " ..	3 "	35	" " .	.....	.....	1·0410	0·9844
" 28	" ..	3770	Louis Mercier & Cie., Levis.	1 pt.	25	J. H. Lee Co. Toronto.	.....	.....	1·0451	0·9859
" 29	" ..	3775	O. Lacroix, 19 Rue St. Joseph, Quebec.	3 bots.	75	E. D. Smith, Winona.	.....	.....	1·0750	1·000
" 30	" ..	3776	Frs. Bourret, 145 St. Paul St. Quebec.	3 "	20	A. Toussaint & Cie., Quebec.	.....	.....	1·0450	0·9844
Feb. 1	" ..	3778	S. Martel, Quebec.	3 "	75	T. Bright Co. Niagara Falls.	.....	.....	1·0234	0·9820
" 2	" ..	3780	P. J. Turgeon, Quebec.	3 "	75	" " ..	.....	.....	1·0247	0·9842
Jan. 29	" ..	3773	O. Lacroix, 19 Rue St. Joseph, Quebec.	3 "	75	Niagara Wine Co.	.....	.....	1·0280	0·9982
DISTRICT OF THREE RIVERS—										
Jan. 16	Vin Canadien.	3931	George Gouin, St. Félix de Valois.	3 bots	75	Ont. Grape Growing Wine Co., St. Catharine.	.....	.....	1·0670	0·9846
" 18	"	3932	L. A. Chaetier, Joliette.	3 "	75	St. David GrowersCo. Toronto.	J. J. Soumis, Joliette.	.....	1·0438	0·9864
" 19	"	3933	Joseph Bordeleau Joliette.	3 "	30	Niag'a Falls Wine Co.	.....	.....	1·3060	0·9820
" 20	"	3934	Ludger Duperant St. Félix de Valois.	3 "	50	St. David GrowersCo. Toronto.	.....	.....	1·0456	0·9861
" 20	"	3935	W. M. Perrault, Joliette.	3 "	90	CherryWine NiagaraCo. N.F.	.....	.....	1·0202	0·9816
" 22	"	3936	Thomas Laporte, L'Assomption.	3 "	75	Niag'a Falls Wine Co, Niag'aFalls	.....	.....	1·0276	0·9830

NATIVE WINE.

Results of Analysis.

Alcohol.			Grammes per 100cc.											
								Acidity.						
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert Sugar.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. tube Direct.	Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.	Preservatives.	Dyes.	No. of Sample.	Remarks and Opinion of the Chief Analyst.

J. E. AUDET, INSPECTOR.

p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		p. c.	p. c.	p. c				
14·82	18·25	31·99	21·02	18·84	3·18	0·180	−31·6	0·930	0·046	0·873	None.	None.	3760	Properly labelled.
10·38	12·87	22·55	20·36	15·58	4·78	0·172	−35·0	0·780	0·058	0·707	Present.	"	3761	"
12·23	15·12	26·49	9·49	6·54	2·95	0·100	− 6·2	0·540	0·084	0·435	None	"	3767	
9·79	12·13	21·27	14·67	12·09	2·58	0·148	− 9·6	0·624	0·065	0·543	"	Present.	3768	
8·71	10·82	18·96	15·35	11·69	3·66	0·200	−20·4	0·720	0·105	0·589	Present.	"	3770	
None.	None.	None	19·47	17·11	2·36	0·268	−20·8	1·260	0·120	1·110	None	None	3775	Labelled "Grape Juice."
9·79	12·13	21·27	15·71	11·00	4·71	0·132	− 7·6	0·643	0·065	0·562	"	Present.	3776	
11·62	14·37	25·18	10·71	7·06	3·65	0·300	− 0·8	0·630	0·060	0·585	"	"	3778	
9·93	12·31	21·57	10·48	8·91	1·51	0·261	− 8·2	0·600	0·072	0·468	"	"	3780	
7·13	8·88	15·56	8·00	7·77	0·33	0·280	− 6·6	0·624	0·048	0·564	Present.	"	3775	

DR. V. P. LAVELLEE, INSPECTOR.

9·64	11·96	20·96	21·41	19·16	3·25	0·200	−20·0	0·825	0·061	0·745	Present.	Present.	3931
8·36	10·38	18·20	14·87	11·15	3·72	0·188	−25·0	0·735	0·067	0·651	None	"	3937
11·62	14·37	25·18	12·58	8·63	3·95	0·252	−19·2	0·612	0·083	0·510	"	"	3939
8·57	10·65	18·65	15·42	11·45	3·97	0·161	−24·0	0·720	0·104	0·594	Present	None	3954
11·92	14·74	25·83	10·00	7·11	2·89	0·268	− 5·0	0·645	0·095	0·504	None	"	3958
10·85	13·43	23·54	11·55	7·11	4·44	0·268	−11·0	0·600	0·048	0·516	"	Present.	3978

BULLETIN No. 316—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF THREE RIVERS—										
1915.										
Jan. 22	Vin Canadien.	3937	Vital Lafortune, L'Assomption.	3 bots	90	Niag'a Falls Wine Co., Niag'a Falls	....	.. ..	1·0274	0·9817
" 25	"	3938	Camille Barrette, Joliette.	3 "	40	"	.....	.....	.....	
" 25	"	3939	L. Z. Magnan, Joliette.	3 "	1.05	"	.....	.....	1·0247	0·9816
" 25	"	3952	Napoleon Garcan, Joliette.	3 "	55	....	J. J. Sounis, Joliette.	....	1·0487	0·9861
DISTRICT OF EASTERN TOWNSHIPS—										
Feb. 9	Vin Canadien.	1762	E. McGovern, Richmond E t.	3 bots	70	Niag'a Falls Wine Co., Niag'a Falls	.....	... .. .	1·0247	0·9809
" 10	"	1763	P. Lavigne, Victoriaville.	3 "	50	.....	H. H. Guay Ltd., Victoriaville	.....	1·0464	0·9857
" 16	"	1764	T. F. Proulx, Windsor Mills.	3 "	60	St. David Wine Growers, Toronto	J. Lavigne Windsor Mills.	... .	1·0447	0·9865
" 16	"	1765	W. Murray & Co., Sherbrooke.	3 "	65	"	. ...	... .. .	1·0468	0·9870
" 22	"	1766	R Dubreuil, St. Cesaire.	3 "	90	"	....	... .	1·0465	0·9864
" 22	"	1767	M. Bessette, Marieville.	3 "	60	Stamford Park Wine Co., Ltd., Niag'a Falls	....	... .	1 0380	0·9863
" 22	"	1768	J. Lalanne, St. Hilaire Sta.	3 "	1.10	"	.. ..	... .	1·0275	0·9824
Mar. 4	Vin Canadien. Rouge.	1769	H. Berdet, St. Hyacinthe.	3 "	....	"	.. ..	.....	1·0163	0·9900
" 22	Vin Canadien Blanc.	1770	V. Martinon, St. Hyacinthe.	3 "	90	"	.....	. .....	0 9964	0·9870
" 26	Vin Canadien. Rouge.	1771	La. Cie S. Bourgeois Inc., St. Hyacinthe.	3 "	60	"	.....	.....	1·0539	0·9838

SESSIONAL PAPER No. 14

NATIVE WINE.

Results of Analysis.															
Alcohol.			Grammes per 100cc.					Acidity.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. Tube Direct.	Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.	Preservatives.	Dyes.		
Concluded.														
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		p. c.	p. c.	p. c.				
11 85	14 65	25 67	11 83	8 06	3·77	0·272	− 9 0	0 564	0 055	0 49.)	None.	Present.	3937	
..	..	..	..	..	..	..	..	..	..	..	..	..	*3938	
11 92	14 74	25 83	11·15	7·87	3 28	0·228	− 6 4	0·615	0 060	0 541	None	Present.	3939	
8 57	10 65	18 65	16 07	12 44	3·63	0 156	−22 4	0·885	0 091	0 772	Present.	..	3952	

J. C. ROULEAU, INSPECTOR.

12 46	15 40	26 99	11 34	7 44	3 90	0 220	−12 2	0 669	0 060	0 531	None	Present.	1762
8 86	11 00	19 27	15 74	11 84	3 90	0 200	−24 0	0 735	0 077	0 639	Present.	..	1763
8 29	10 30	18 04	15 08	11 45	3 63	0 130	−16 0	0 717	0 093	0 611	..	..	1764
7 93	9 86	17 29	15 50	11 64	3 86	0 160	−19·0	0 670	0 091	0 557	None	..	1765
8 36	10 38	18 20	15 58	11 60	4 53	0 180	−25 0	0 918	0 122	0 758	..	..	1766
8 43	10 47	18 25	13 39	12 64	0 75	0 260	−23 4	0 270	0 088	0 160	..	None	1767
11 31	13 99	24 52	11 68	8 37	3 31	0 260	− 0 4	0 270	0 043	0 217	..	..	1768
5 87	7 32	12 84	6 80	0 63		0 140	− 0 2	0 732	0 024	0 709	..	..	1769
7 93	9 86	17 29	2 43	0 84	1 59	0 212	+ 1 0	0 759	0 045	0 714	..	..	1770
10 23	12 68	22 22	18 19	12 54	5 56	0 262	− 3 0	0 681	0 050	0 619	..	Present	1771

* Both samples broken

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF MONTREAL—										
1915.										
April 10	Native Wine.	62661	J. A. R. Beaudin, 1283 Desirables St., Montreal.	3 pts.	38	St. David Wine Co.	.. ..	.. ..	1·0432	0·9867
" 10	"	62662	J. E. Perreault, 1157 Marieanne St. E., Montreal.	3 "	30	Stamford Park Wine Co.	.....	..... .	1·0602	0·9862
" 10	"	62663	Grenon Freres, 680 Papineau Ave., Montreal.	3 "	38	Hudon & Orsali.	.....	....	1·0265	0·9814
" 10	"	62664	T. Bertrand, 102 De Laroche St., Montreal.	3 "	60	Ont. Grape Growing Co.	... .	.....	1·0729	0·9861
" 10	"	62665	James Kilgallon, 421 Wellington St., Montreal.	3 "	40	Stamford Park Wine Co.	.....	.....	1·0631	0·9877
" 10	"	62666	J. H. Dupuis, 373 Wellington St., Montreal.	3 "	50	" ..	....	.....	1 0479	0·9993
" 10	"	62667	J. E. Belisle, 129 Wellington St., Montreal.	3 "	60	St. David Wine Co.	.. . .	.....	1·0427	0·9860
" 10	"	62668	P. Bedard, 2236 St. Denis St., Montreal.	3 "	50	Hudon & Orsali.	... .	.....	1·0257	0 9818
" 10	"	62669	D. D. Gauthier, 111 St. Zotique St., Montreal.	3 "	45	" ..	.....	.....	1·0282	0·9821
" 10	"	62670	H. Plouffe, 92 St. Zotique St., Montreal.	3 "	60	" ..	....	.....	1·0261	0·9818
DISTRICT OF VALLEYFIELD—										
Feb. 1	Wine	58226	G. Dupuis, St. Johns, P.Q.	3 pts.	40	Ont. Grape Growing Co., St. Catherines.	....	....	1·0738	0·9852
" 1	"	58227	F. Claprood, St. Johns, P.Q.	3 "	50	.....	E. H. Hebert, Valleyfield.	.....	1·0451	0·9818
" 5	"	58228	E. H. Hebert, Valleyfield.	3 "	38	Stamford Park Wine Co.	... ...	....	1·0472	0·9827
" 5	....	58229	J. A. Masson, Valleyfield.	3 "	35	Niagara Falls Wine Co.	.. ..	.... ..	1·0244	0 9829

SESSIONAL PAPER No. 14

NATIVE WINE.

Results of Analysis.														
Alcohol.			Grammes per 100cc.											
								Acidity.						
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. tube Direct.	Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.	Preservatives.	Dyes.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
D. J. KEARNEY, INSPECTOR.														
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.				
8·86	11·00	19 27	14·90	11·64	3·26	0·180	−23·0	0 573	0·028	0·538	Present.	Present.	62661	
8·59	10·50	18·50	19·21	15·99	3 22	0·228	−29·6	0 801	0·098	0 679	None.	"	62662	
12·08	14·93	26·17	11 68	8 10	3·58	0 268	−12 2	0 582	0·055	0·513	"	"	62663	
8·57	10·65	18·65	22·57	18·62	3 95	0 200	−29·0	0 798	0·067	0 714	Present.	None.	62664	
7·47	9·29	16 28	19 58	15·27	4 31	0 261	−31 0	0 840	0 046	0 782	"	Present.	62665	
0 37	0·46	0·81	12 58	11·00	1·58	0 220	− 3 6	0 705	0 041	0 654	"	None.	62666	Grape Juice
8 64	10·73	18·81	14 69	12 04	2·63	0 156	−21 8	0 714	0 093	0 599	"	Present.	62667	
11 77	14·56	25·51	11 36	7·91	3 45	0·268	−10 1	0 549	0 036	0 504	None	"	62668	
11 54	14·27	25·01	11 94	7 72	4 22	0 280	−10 4	0 588	0 065	0 507	"	None	62669	
11·62	14·37	25 18	11 21	8 39	2 82	0 228	9 0	0 486	0 038	0 438	"	Present	62670	
J. J. COSTIGAN, ACTING INSPECTOR.														
9 21	11·44	20 01	23 04	19 09	3 95	0 212	32 4	0 990	0 067	0 923	Present	None	62678	
11 77	14·56	25 51	16 41	14 20	2 21	0 220	−15 0	0 678	0 031	0 593	"	"	62727	
11 08	13 71	24 03	15 73	14 66	2 07	0 244	−18 8	0 620	0 041	0 648	"	"	62728	
10 92	13 52	23 70	10 74	7·58	3 16	0 308	− 6 8	0 594	0 060	0 508	None	Present.	62729	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF VALLEYFIELD—										
1915.										
Feb. 5	Wine.....	58230	J. Lepage, Valleyfield.	3 pts.	38	Stamford Park Wine Co.	.....	.....	1·0455	0·9818
" 5	"	58231	S. Beaudin, Valleyfield.	3 bots	75	.....	.....	Bottled by vendor.	1·0727	0·9855
" 16	"	58232	A. Filion, Buckingham.	3 pts.	50	Niagara Falls Wine Co.	.....	.....	1·0204	0·9808
" 16	"	58233	Tourangeau & Champagne, Buckingham.	3 "	50	.....	.....	.....	1·0614	0·9842
" 23	" ...	58234	S. Ganthier, Farnham.	3 "	75	.....	.....	.....	1·0398	0·9884
" 23	"	58235	H. F. Batalon, Farnham.	3 "	60	.....	Narcisse Loul, St. Johns, P.Q.	.....	1·0443	0·9804
DISTRICT OF OTTAWA—										
Feb. 3	Native Wine.	63487	The Ottawa Wine Vaults Co., Ottawa.	3 bots.	100	Stamford Park Wine Co., Niagara Falls.	Mfrs.. ...	Old Niagara.	1·0512	0·9833
" 3	"	63488	" " ..	3 "	50	" " ..	"	Gold Medal.	1·0496	0·9847
" 3	"	63489	S. J. Major, Ltd., Ottawa.	3 "	45	T. G. Bright Co., Niagara Falls.	"	Diamond.	1·0273	0·9818
" 3	"	63490	" " ..	3 "	60	" " ..	"	Royal....	1·0266	0·9804
" 6	"	63491	M. J. Laverdure, Hull.	3 "	75	Ont. Grape Growing & Wine Mfg. Co., St. Catharines.	"	Pure Grape Wine.	1·0673	0·9846
" 6	"	63492	" " ..	3 "	75	St. David Wine Growers Co., Toronto.	" ...	.....	1·0426	0·9842
" 8	"	63493	Jos. Lavigne, 332 Wellington St., Ottawa.	3 "	75	Stamford Park Wine Co, Niagara Falls.	"	....	1·0376	0·9834
" 8	"	63494	A. L. Pinard & Sons, Rideau St., Ottawa.	3 "	1 50	T. G. Bright Co., Niagara Falls.	"	.....	1·0276	0·9810
" 8	"	63495	J. H. O'Reilly, Rideau St., Ottawa.	3 "	75	Pelee Island Wine & Vineyards Co., Brantford.	"	....	1·0654	0·9867
" 8	"	63496	" " ..	3 "	1 50	" " ..	"	St. Augustine.	1·0577	0·9823

SESSIONAL PAPER No. 14

NATIVE WINE.

Results of Analysis.

Alcohol.			Grammes per 100cc.											Remarks and Opinion of the Chief Analyst.
								Acidity.						
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. tube Direct.	Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.	Preservatives.	Dyes.	No. of Sample.	
Concluded.														
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.				
11·77	14·56	25·51	16·52	13·69	2 83	0·220	- 16·0	0·696	0 038	0·648	Present.	None	58230	
9·00	11·17	19·58	22·67	19 05	3·62	0 212	- 32·2	0·975	0·130	0 703	"	"	58231	
12·54	15·49	27·15	10 25	6·73	3 52	0 220	- 10·0	0·510	0 048	0 450	None	Present.	58232	
9 93	12·31	21·57	20 05	16·10	3 95	0 200	- 29 6	0 870	0 060	0 795	Present.	None	58233	
7·00	8 72	15 27	13·31	8·34	3·99	0·180	- 4 0	0 816	0 106	0·710	"	"	58234	
12·85	15·86	27 81	16·57	14 53	2 04	0 220	- 1 0	0 740	0 036	0 695	None	"	58235	
J. A. RICKEY, INSPECTOR.														
10 62	13 15	23 04	17 62	14 15	3 47	0 188	- 23 4	0 615	0 036	0 570	Present.	None	63187	
9·57	11 87	20 81	16 83	13 24	3 59	0 184	- 3 4	0 765	0 055	0 696	None.	"	63188	
11 77	14 56	25 51	11 78	10 86	0 92	0 208	9 6	0 585	0 065	0 504	"	Present	63189	
12 85	15 86	27 81	11 96	7 63	4 33	0 210	- 0 6	0 609	0 077	0 513	"	"	63190	Property labelled.
9 64	11 96	20 96	21 49	16 98	4 51	0 228	- 30 2	0 885	0 072	0 795	Present.	None	63191	
9 93	12 31	21 57	15 14	12 49	2 65	0 180	- 21 0	0 696	0 091	0 583	"	Present	63192	Property labelled.
10 54	13 05	22 88	14 04	12 05	1 99	0 320	- 17 0	0 630	0 041	0 [illegible]	"	None	63193	
12 38	15 30	26 82	12 06	7 49	4 57	0 288	- 2 0	0 666	0 053	0 600	None	"	63194	
8 14	10 12	17 74	20 44	16 62	3 82	0 124	- 10 4	0 714	0 120	0 564	"	Present	63195	
11 38	14 09	24 69	19 58	9 30	[illegible]	0 132	- 20 0	0 660	0 075	0 591	"	"	63196	Property labelled.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF KINGSTON—										
1915.										
Feb. 1	Native Wine.	66526	The Thompson Co., Kingston.	3 bots.	90	.....	.....	Bottled by Vendor.	1·0460	0·9861
" 1	"	66527	E. Beaupre, Kingston.	3 "	1 50	Hillrust Wine Mfg. Co., St. Catharines.	.....	Canadian Port.	1·0699	0·9846
" 1	"	66528	J. Gordon, Kingston.	3 "	1 50	.....	.....	Sherry. Bottled by Vendor.	0·9863	0·9808
" 1	"	66529	" " .	3 "	1 50	Ont. Grape Growing & Wine Mfg Co., St. Catharines.	.....	Port	1·0747	0·9853
" 1	"	66530	J. McParland, Kingston	3 "	1 50	T. G. Bright & Co., Toronto	.....	.....	1 0317	0·9821
" 1	"	66531	" " ..	3 "	1 50	Pelee Island Wine & Vineyards Co.	.....	St. Augustine.	1·0650	0·9829
" 15	"	67532	W. A. Radbourne, Belleville.	3 "	90	T. G. Bright, Toronto.	.....	.....	1·0268	0·9823
" 15	"	66533	Wesley Bullen, Belleville.	3 "	1 35	Pelee Island Wine & Vineyards Co.	.....	.....	1·0617	0·9848
" 16	"	66534	Hooey & Son, Cobourg.	3 "	90	T. G. Bright, Toronto.	.....	.....	1·0287	0·9829
" 16	"	66535	William Mitchell, Port Hope.	3 "	1 50	T. G. Bright, Niagara Falls	.....	.....	1·0291	0·9816
DISTRICT OF TORONTO										
Jan. 29	Native Wine.	64648	T. F. Hannan, 834 Yonge st., Toronto.	3 pts.	75	T. G. Bright, Niagara Falls.	.....	.....	1·0267	0·9823
" 29	" .	64649	A. P. Herbert, 183 King st., E., Toronto.	3 bots.	75	"	.....	.....	1·0253	0·9841
" 29	" .	64650	Ryan & Co., Ltd., 928 Bloor st., W., Toronto.	3 pts.	60	"	.....	.....	1·0261	0·9815
" 29	" .	64651	J. H. King, 112 Dundas st., Toronto.	3 bots.	1 05	Pelee Island Wine & Vinegar Co., Brantford.	.....	St. Augustine.	1·0706	0·9836

SESSIONAL PAPER No. 14

NATIVE WINE.

Results of Analysis.

Alcohol.			Grammes per 100cc											Remarks and Opinion of the Chief Analyst.
								Acidity.						
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. Tube Direct.	Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.	Preservatives.	Dyes.	No. of Sample	
JAMES HOGAN, INSPECTOR.														
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		p. c.	p. c.	p. c.				
8·57	10·65	18·65	15·53	13·64	1·89	0·200	−24·0	1·080	0·175	0·862	Present.	Present.	66526	
9·64	11·96	20·96	22·17	16·98	5·19	0·196	−22·1	0·861	0·077	0·765	"	None.	66527	Properly labelled.
12·54	15·49	27·15	1·42	1·10	0·32	0·336	− 0·6	0·402	0·036	0·357	None.	"	66528	"
9·14	11·35	19·89	23·25	21·72	1·53	0·228	−31·2	0·916	0·077	0·820	Present.	"	66529	"
11·54	14·27	25·01	12·84	8·63	4·21	0·252	− 4·6	0·570	0·057	0·499	None	Present.	66530	"
10·92	13·52	23·70	21·33	16·98	4·35	0·228	−13·6	0·574	0·098	0·452	"	"	66531	"
11·38	14·09	24·69	11·52	8·25	3·27	0·252	− 6·0	0·585	0·156	0·390	"	"	66532	"
9·50	11·79	20·65	19·97	15·68	3·29	0·168	−13·0	0·732	0·163	0·529	"	"	66533	Properly labelled
10·92	13·52	23·70	11·91	8·06	3·85	0·280	− 9·0	0·741	0·096	0·621	"	"	66534	"
11·92	14·74	25·83	12·30	9·11	3·19	0·156	− 6·0	0·633	0·072	0·543	"	"	66535	"
H. J. DAGER, INSPECTOR.														
11·38	14·09	24·69	11·48	8·20	3·29	0·296	− 2·0	0·645	0·053	0·578	None	Present.	64648	"
10·00	12·40	21·73	10·66	8·01	2·65	0·216	−10·2	0·606	0·046	0·549	"	"	64649	Properly labelled
12·00	14·84	26·00	11·55	8·16	2·59	0·268	− 6·8	0·649	0·08[illegible]	0·540	"	"	64650	"
10·38	12·87	22·56	22·62	19·81	2·81	0·152	−10·2	0·486	0·084	0·[illegible]	"	"	64651	Properly labelled

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF TORONTO—										
1915.										
Jan. 30	Native Wine.	64652	W. J. Kelly, 749 Queen st., W., Toronto.	3 bots.	75	J. W. Lee & Co., Toronto.			1·0447	0·9852
Feb. 18	"	64653	M. Finigan, Whitby.	3 "	1 00	Ont. Wine Growing & Mfg. Co., St. Catharines.			1·0756	0·9857
" 24	"	64654	E. T. Sardell, 525 Yonge st., Toronto.	3 "	90	"			1·0127	0·9810
" 26	"	66811	The Wm. Mora Co., Ltd., 94 Yonge st., Toronto	3 "	1 35	Niagara Falls Wine Co., Niagara Falls.		Concord	1·0243	0·9803
" 26	"	66812	Michie Co., Ltd., 5½ King st., W., Toronto.	3 "	1 35	T. G. Bright Co., Niagara Falls.		"	1·0248	0·9812
" 26	"	66813	J. Mather, 152 King st., E., Toronto.	3 "	90	"			1·0242	0·9818
DISTRICT OF HAMILTON—										
Mar. 2	Native Wine.	66834	Geo. Bernhardt, Preston.	3 bots.	75	T. G. Bright & Co., Niagara Falls.			1·0287	0·9819
" 3	"	66835	J. E. Segram & Sons, Waterloo, Ont.	3 "	90	J. S. Hamilton & Co., Brantford.			1·0632	0·9861
" 3	"	66836	Beinhardt & Zeyler, Berlin.	3 "	90	Ont. Grape Growing & Wine Mfg. Co., St. Catharines			1·0652	0·9892
" 9	"	*66837	J. S. Hamilton & Sons, Brantford	3 "	90	Vendors				
" 12	"	66838	J. Haurigan, Dundas.	3 "	90	T. G. Bright Co., Niagara Falls.			1·0249	0·9813
" 12	"	66839	M. Cummings, 4 Barton st., E., Hamilton.	3 "	75	Stamford Park Wine Co., Niagara Falls.			1·0555	0·9815
" 12	"	66840	H. Callows, 255 Hughson st., N., Hamilton.	3 "	90	St. Davids Wine Co., Ltd., Toronto.			1·0495	0·9866

*Both samples broken.

SESSIONAL PAPER No. 14

NATIVE WINE.

Results of Analysis.

Alcohol.			Grammes per 100cc											Remarks and Opinion of the Chief Analyst.
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert Sugar.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. tube Direct.	Acidity. Total as Tartaric.	Acidity. Volatile as Acetic.	Acidity. Fixed as Tartaric.	Preservatives.	Dyes.	No. of Sample.	
Concluded.														
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.				
9·21	11·44	20·04	15·42	11·99	3·43	0·152	- 26·8	0·690	0·093	0·574	Present.	Present.	64652	
8·86	11·00	19·27	23·38	19·71	3·67	0·240	- 14·0	0·885	0·014	0·870	None.	None.	64653	
12·38	15·30	26·82	8·20	4·83	3·37	0·180	- 8·0	0·879	0·048	0·819	"	"	64654	Properly labelled
12·92	15·96	27·97	11·39	9·75	1·44	0·250	- 0·7	0·684	0·041	0·633	"	"	64811	"
12·23	15·12	26·49	11·28	8·77	2·51	0·230	+ 2·0	0·678	0·026	0·645	"	Present.	64812	
11·77	14·56	25·51	10·97	7·96	3·01	0·240	- 7·0	0·672	0·069	0·602	"	"	64813	
H. J. DAGER, ACTING INSPECTOR														
11·69	14·46	25·31	12·12	8·31	3·78	0·268	- 9·6	0·588	0·064	0·508	None.	Present	64834	
8·57	10·65	18·65	20·02	15·79	4·23	0·164	- 10·0	0·717	0·163	0·513	"	"	64835	
6·43	8·01	14·04	19·73	16·72	3·01	0·200	- 30·0	0·858	0·057	0·787	Present.	None.	64836	Properly labelled
													*64837	
12·15	15·02	26·33	11·28	9·61	1·67	0·288	- 1·6	0·258	0·046	0·204	None.	None.	64838	Properly labelled
12·09	14·84	26·00	19·21	13·74	5·47	0·220	- 7·0	0·[illegible]	0·[illegible]	0·[illegible]	Present.	"	64839	
8·21	10·21	17·89	16·31	12·39	3·92	0·124	- 17·6	0·[illegible]	0·[illegible]	0·[illegible]	"	"	64840	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF HAMILTON—										
1915.										
Mar. 12	Native Wine.	66841	James Blake, 117 Simcoe st., E., Hamilton.	3 bots.	90	.. ..	Jas. Turner, Hamilton.	.....	1·0277	0·9815
" 12	" .	66842	Strickland & Shea, 276 King st., E., Hamilton.	3 "	90	The Hillrust Wine Mfg. Co., St. Catharines.	.....	... .	1·0483	0·9842
" 12	" .	66843	Wm. Smye, Jr., 75 Wellington st., N., Hamilton.	3 "	90	Stamford Park Wine Co., Niagara Falls.	.....	....	1·0453	0·9825
DISTRICT OF WINDSOR—										
Jan. 21	Native Wine.	63978	Ed. Shea, London.	3 pts.	60	Stamford Wine Co., Niagara Falls.	....	....	1·0586	8·9859
" 21	"	63979	" " ..	3 "	75	T. G. Bright Co., Niagara Falls.	.....	.....	1·0284	0·9818
" 21	"	63980	P. J. Watt, London.	3 bots.	Nil.	Stamford Wine Co., Niagara Falls.	... .	Gold Medal Port.	1·0448	0·9828
" 25	"	63981	Hockin Bros., London.	3 "	120	Girarilot Wine Co., Sandwich.	..... .	.....	1·0653	0·9862
" 26	"	63983	E. B. Smith, London.	3 "	75	Ont. Grape and Wine Co., St. Catharines.	.....	.....	1·0663	0·9844
Feb. 9	"	63984	Donald Fraser, St. Thomas.	3 pts	35	St. David's Wine Growers.	....	Port E...	1·0451	0·9862
" 9	"	63985	" " ..	3 bots.	75	Pelee Island Wine and Vineyard Co.	.....	.....	1·0506	0·9855
" 9	"	63986	E. J. Butler, St. Thomas.	3 "	75	Niagara Falls Wine Co., Ltd.	.....	.....	1·0302	0·9826
" 9	"	63987	J. H. Price, St. Thomas.	3 pts.	50	St. David's Wine Co., Toronto.	.....	Port.....	1·0494	0·9861
" 9	"	63988	" " ..	3 bots.	150	T. G. Bright Co., Toronto.	....	Concord..	1·0278	0·9817

SESSIONAL PAPER No. 14

NATIVE WINE.

Results of Analysis.															
Alcohol.			Grammes per 100cc.												
								Acidity.							
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert sugar.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. tube Direct.	Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.	Preservatives.	Dyes.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.														
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.				
12·09	14·84	26·00	11·96	7·68	4·28	0·280	−9·0	0·684	0·055	0·629	None.	Present.	66841	
9·93	12·31	21·57	16·62	13·64	2·98	0·200	−16·5	0·747	0·046	0·689	Pre-	None.	66842	Properly labelled.
11·23	13·90	24·36	16·2-	11·69	4·59	0·236	−13·6	0·690	0·070	0·610	None.	Present.	66843	
JNO. TALBOT, INSPECTOR.														
8·71	10·82	18·96	18·87	16·46	2·41	0·200	−29·6	0·720	0·025	0·689	Present.	Present.	63978	
11·77	14·56	25·51	11·96	6·92	5·04	0·292	−24·0	0·690	0·065	0·609	None	—	63979	
11·00	13·62	23·86	16·07	13·64	3·43	0·244	−17·4	0·690	0·032	0·659	Present.	None	63980	
8·50	10·56	18·50	20·55	17·14	3·31	0·188	−12·6	0·764	0·237	0·468	None	Present	63981	Properly labelled
9·79	12·13	21·27	21·28	17·14	5·14	0·164	−31·4	0·870	0·134	0·613	Present.	None	63982	
8·57	10·65	18·65	15·27	13·04	2·23	0·160	−1·4	0·750	0·091	0·637	—	Present	63983	
9·00	11·17	19·58	16·88	13·04	3·84	0·148	−21·8	0·723	0·081	0·622	—	—	63985	Properly labelled
14·13	13·81	24·19	12·32	7·87	4·45	0·300	−4·6	0·645	0·05-	0·540	None	—	63986	
8·57	10·65	18·65	16·41	12·64	3·77	0·188	−28·0	0·690	0·137	0·579	Present.	None	63987	
11·86	14·65	25·67	11·94	7·87	4·07	0·272	−3·0	0·723	0·072	0·630	None	Present	63988	Properly labelled

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF MANITOBA—										
1915.										
Jan. 25	Native Wine.	61226	E. Brotman & Son, Logan Ave., Winnipeg.	3 pts.	60	Stamford Park Wine Co., Niagara Falls.		Gold Medal Port.	1·0564	0·9844
" 25	"	61227	Manitoba Liquor Store, 248 Logan Ave., Winnipeg.	3 "	40	"			1·0554	0·9842
" 25	"	61228	North West Liquor Store, 309 Logan Ave., Winnipeg.	3 "	75	"			1·0584	0·9833
" 25	"	61229	Winnipeg Wine Co., Main St., Winnipeg.	3 "	65	"			1·0552	0·9838
" 25	"	61230	Eagle Liquor Store, 175 Heney St., Winnipeg.	½ gall.	65	"			1·0570	0·9852
" 25	"	61231	Regal Wine Co., Ltd., 721 Main St., Winnipeg.	½ "	65	"			1·0339	0·9836
" 25	"	61232	T. D. Cavanagh, Ltd., Higgins Ave., Winnipeg.	½ "	65	"			1·0508	0·9855
" 25	"	61233	The Quality Liquor Store, 148 Higgins Ave., Winnipeg.	½ "	65	"			1·0532	0·9831
" 26	"	61234	Maple Leaf Wine Co., 324 Notre Dame Ave., Winnipeg.	½ "	65	"			1·0591	0·9846
" 26	"	61235	The City Liquor Store, 308 Notre Dame Ave., Winnipeg.	½ "	60	"			1·0227	0·9814
DISTRICT OF SASKATCHEWAN—										
Jan. 30	Native Wine.	66329	Wm. Robertson, Regina.	3 pts.	40	T. G. Bright Niagara Falls.			1·0272	0·9800
" 30	"	66330	E. Foret, Regina.	3 "	75	"			1·0240	0·9813
" 30	"	66331	Regina Wholesale Liquor Co., Regina.	3 "	40	St. David Wine Growers Co., Toronto.			1·0398	0·9820

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NATIVE WINE.

Results of Analysis.

Alcohol.			Grammes per 100cc.											Remarks and Opinion of the Chief Analyst.
								Acidity.						
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert Sugar.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. tube Direct.	Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.	Preservatives.	Dyes.	No. of Sample.	
A. C. LARIVIÈRE, INSPECTOR.														
p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c		p. c.	p. c.	p. c.				
9·79	12·13	21·27	18·69	14·66	4·03	0·188	−17·2	0·666	0·036	0·621	Present.	None.	61226	
9·93	12·31	21·57	18·48	14·66	3·82	0·224	−16·4	0·693	0·053	0·627	"	"	61227	
10·62	13·15	23·04	19·50	15·48	4·02	0·188	−17·0	0·684	0·053	0·618	"	"	61228	
10·23	12·68	22·22	18·53	15·48	3·05	0·180	−15·4	0·693	0·038	0·645	"	"	61229	
9·21	11·44	20·04	18·63	16·10	2·53	0·228	+1·6	0·807	0·060	0·732	"	"	61230	
10·38	12·87	22·55	10·43	9·68	0·75	0·220	−17·4	0·696	0·042	0·643	"	"	61231	
9·00	11·17	19·58	16·94	14·25	2·69	0·156	−32·8	0·600	0·038	0·552	"	"	61232	
10·77	13·34	23·37	18·19	14·05	4·14	0·204	−14·4	0·720	0·036	0·675	"	"	61233	
9·64	11·96	20·96	19·34	14·30	5·04	0·180	−0·4	0·821	0·038	0·733	"	"	61234	
12·08	14·93	26·17	10·69	6·78	4·11	0·260	9·6	0·630	0·066	0·547	None	"	61235	
L. H. HALL, INSPECTOR.														
13·15	16·24	28·46	12·22	9·30	2·92	0·268	−10·4	0·574	0·048	0·514	None	Present	61236	
12·16	15·02	26·33	11·05	8·49	2·56	0·284	7·2	0·654	0·054	0·564	"	"	61237	
11·62	14·37	25·18	14·98	13·24	1·74	0·200	−22·0	0·726	0·077	0·630	"	"	61238	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report (Is not an expression of opinion.)	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF SASKATCHEWAN—										
1915.										
Jan. 30	Native Wine.	66332	H. M. Hillman, Regina.	3 pts.	75	Ont. Grape Growing Wine Mfrs. St. Catharines.			1·0741	0·9849
" 30	"	66333	Capital Wine Co., Regina.	3 "	65	T. G. Bright Co., Niagara Falls.			1·0289	0·9819
Feb. 1	"	66335	Gold Coin Liquor Store, Moosejaw.	3 "	50	St. David's Wine Growers Co., Toronto.			1·0461	0·9893
" 1	"	66336	E. B. R. Pragnell, Moosejaw.	3 "	25	"			1·0477	0·9861
" 1	"	66337	Moose Jaw Liquor Store, Moosejaw.	3 "	50	T. G. Bright Co., Niagara Falls.			1·0229	0·9809
" 1	"	66338	Western Commercial Co., Moosejaw.	3 "	75	St. David's Wine Growers Co., Moosejaw.			1·0484	0·9862
" 3	"	66346	Robinson & Walsh, Weyburn.	3 "	1 00	"			1·0420	0·9849
DISTRICT OF ALBERTA—										
Mar. 11	Native Wine.	52075	H. R. Arnold, Red Deer.	3 pts.	15	Ont. Grape Growing & Wine Mfg. Co., St. Catharines.			1·0751	0·9849
" 12	"	52076	F. L. Smith Co., Lacombe.	3 "	75	St. David's Wine Growers, Toronto.			1·0331	0·9865
" 13	"	52077	Wetaskiwin Wine and Spirit Co., Wetaskiwin.	3 bots.	75	Niagara Falls Wine Co.			1·0238	0·9813
" 17	"	52078	Western Commercial Co., Calgary.	1 qt.	65	T. G. Bright & Co., Niagara Falls			1·0306	0·9814
" 19	"	52079	"	1 "	65	J. W. Lee & Co., Toronto.			1·0459	0·9857
" 19	"	52080	E. W. Spence, Calgary.	1 "	75	Niagara Falls Wine Co.		Diamond	1·0222	0·9807

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NATIVE WINE.

Results of Analysis.															
Alcohol.			Grammes per 100cc.											No. of Sample.	Remarks and Opinion of the Chief Analyst.
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert Sugar.	Non-Sugar. Solids.	Ash.	Polarization in 200 mm. tube. Direct.	Acidity. Total as Tartaric.	Acidity. Volatile as Acetic.	Acidity. Fixed as Tartaric.	Preservatives.	Dyes.		
Concluded.															
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.				
9·43	11·70	20·50	23·20	20·57	2·63	0·188	−31·6	0·984	0·055	0·915	Present	None.		66332
11·69	14·46	25·34	12·17	9·49	2·68	0·252	−11·6	9·609	0·057	0·538	None.	Present.		66333
6·36	7·92	14·88	14·72	13·24	1·48	0·176	−24·4	0·810	0·055	0·736	Present.	"		66335
8·57	10·65	18·65	15·97	13·44	2·53	0·228	−20·4	0·909	0·125	0·753	"	"		66336
12·46	15·40	26·99	10·87	8·53	2·34	0·228	−21·8	0·621	0·048	0·561	None.	"		66337
8·50	10·56	18·50	16·13	12·84	3·29	0·068	−21·6	0·879	0·144	0·699	Present.	None.		66338
9·43	11·70	20·50	14·80	11·89	2·91	0·156	−20·4	3·720	0·077	0·624	"	"		66340
A. W. R. MARKLEY, INSPECTOR.															
9·43	11·70	20·50	23·46	15·99	7·47	0·228	3·6	0·939	0·060	0·864	None.	None.		52075
8·29	10·30	18·04	12·06	11·74	0·32	0·200	1·8	0·861	0·225	0·78	Present.	"		52076
12·15	15·02	26·33	11·00	6·83	4·17	0·240	7·4	0·690	0·046	0·65	None.	"		52077
12·08	14·93	26·17	12·74	10·45	2·29	0·280	0·4	0·699	0·045	0·645	Present.	"		52078
8·86	11·00	19·27	15·61	10·46	5·15	0·150	7·6	1·070	0·091	0·975	None.	Present.		52079
12·62	15·58	27·31	10·74	10·61	0·13	0·250	2·0	0·711	0·060	0·636	"	"		52080

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF ALBERTA										
1915.										
Mar. 19	Native Wine.	52081	North west Supply Co., Calgary.	1 Qt.	60	Niagara Falls Wine Co.	.....	.....	1·0330	0·9819
" 19	"	52082	Diamond Liquor Store.	1 "	75	"	.....	.....	1·0272	0·9806
" 19	"	52083	J. A. Guttman, Calgary.	1 "	75	St. David's Wind Co., Toronto.	.....	.....	1·0488	0·9858
" 19	"	52084	The McMann's Liquor Co., Calgary.	1 "	60	Niagara Falls Wine Co.	.....	.....	1·0488	0·9860
DISTRICT OF ROCKY MOUNTAINS										
Feb. 1	Native Wine.	61741	Nelson Wine & Spirit Co., Nelson, B.C.	3 bots.	1 50	T. G. Bright Co., Niagara Falls.	.....	One Diamond.	1·0348	0·9820
" 1	"	61742	" " "	3 "	2 25	" " "	.....	Concord.	1·0262	0·9804
" 1	"	61743	Hudsons Bay Co., Nelson, B.C.	3 "	1 50	" " "	.....	.....	1·0281	0·9832
" 6	"	61751	Revelstoke Wine & Spirit Co., Revelstoke, B.C.	3 "	1 00	St. David's Wine Growers Co., Toronto.	.....	.....	1·0466	0·9851
" 15	"	61766	Western Wine & Liquor Co., Kamloops, B.C.	3 "	1 00	Stanford Park Wine Co., Niagara Falls.	.....	.....	1·0581	0·9846
" 15	"	61767	Hudsons Bay Co., Kamloops, B.C.	3 "	1 50	.....	Hudsons Bay Co, Vancouver, B.C.	.....	1·0274	0·9816
" 16	"	61783	Owens Family Liquor Store, Rossland, B.C.	3 "	2 25	Ont. Grape Growing & Wine Mfg. Co, St. Catherines.	.....	.....	1·0710	0·9851
" 16	"	61784	D. Thomas, Ltd., Rossland, B.C.	3 "	2 25	St. David's Wine Growers Co, Toronto.	.....	.....	1·0415	0·9852

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NATIVE WINE,

Results of Analysis.															
Alcohol.			Grammes per 100cc											No. of Sample.	Remarks and Opinion of the Chief Analyst
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert Sugar.	Non-Sugar Solids.	Ash.	Polarization in 100 mm. tube Direct.	Acidity.			Preservatives.	Dyes.		
								Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.				

Concluded.

p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.				
11·69	14·46	25·31	13·21	10·43	2·78	0·268	− 1·0	0·696	0·053	0·630	None.	None.	52081	
12·69	15·68	27·48	12·06	7·20	4·86	0·220	+ 0·6	0·716	0·043	0·663	"	"	52082	
8·79	10·91	19·11	16·33	9·69	6·64	0·130	− 2·2	0·961	0·093	0·855	Present.	"	52083	
8·64	10·73	18·81	16·28	2·68	. .	0·120	+ 2·0	0·675	0·043	0·622	"	Present.	52084	

THOMAS PARKER, INSPECTOR.

11·62	14·37	25·18	13·68	10·46	3·22	0·312	3·6	0·858	0·065	0·777	None	Present	61741	
12·85	15·86	27·81	11·86	7·25	4·61	0·156	− 1·6	0·660	0·038	0·612	"	None	61742	
10·69	13·24	23·21	11·62	8·25	2·37	0·164	1·0	0·666	0·041	0·615	"	"	61743	Properly labelled
9·29	11·52	20·19	15·94	11·94	4·00	0·168	21·0	0·780	0·086	0·673	Present.	Present.	61751	
9·64	11·96	20·96	19·08	18·03	1·05	0·220	5·6	0·990	0·091	0·887	"	None	61766	
11·92	14·74	25·83	11·86	7·49	4·37	0·220	0·6	0·588	0·057	0·513	None	"	61767	Properly labelled.
9·29	11·52	20·19	22·33	21·09	1·24	0·260	15·0	0·888	0·064	0·808	"	Present	61785	
9·21	11·44	20·04	14·59	9·64	4·95	0·280	1·0	0·813	0·110	0·676	Present	None	61784	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
DISTRICT OF VANCOUVER—										
1915.										
Jan. 21	Native Wine.	55168	Gold Seal Liquor Co., Ltd., 712 Pender St., Vancouver, B.C.	3 bots.	75	Stamford Park Wine Co., Niagara Falls.	.....	St. Elmo.	1·0465	0·9823
" 22	"	55169	A & B. Liquor Co., 659 Granville St., Vancouver, B.C.	3 "	75	St. David's Wine Growers Co., Toronto.	.....	.....	1·0276	0·9846
" 22	"	55170	Hudsons Bay Co., 670 Granville St., Vancouver, B.C.	3 "	75	Niagara Falls Wine Co.	.....	.....	1·0463	0·9825
" 22	"	55171	Hose & Brooks Co., Ltd., 504 Main St., Vancouver, B.C.	3 "	75	St. David's Wine Growers Co., Toronto.	.....	.....	1·0476	0·9861
" 22	"	55172	Hugh Bros, 105 Hastings St., E., Vancouver, B.C.	3 "	75	T. G. Bright Co., Niagara Falls.	.....	.....	1·0276	0·9815
" 22	"	55173	Crown Liquor Co., 6 Hastings St., E., Vancouver, B.C.	3 "	75	" " ..	.....	.....	1·0222	9·9808
" 22	"	55174	Universal Wine Co., 54 Cordova St., Vancouver B.C.	3 "	75	Niagara Falls Wine Co.	.....	.....	1·0232	0·9800
" 22	"	55175	B.C. Wine Co., 534 Pender St., W., Vancouver, B.C.	3 "	75	T. G. Bright Co., Niagara Falls.	.....	Princess Irma Brand.	1·0241	0·9833
" 23	"	55176	Maple Leaf Liquor Co., 831 Granville St., Vancouver, B.C.	3 "	75	Unknown ..	.....	.....	1·0621	0·9852
" 23	"	55177	Vancouver Wine & Spirit Co., Ltd., 1097 Granville St., Vancouver, B.C.	3 "	75	Stamford Park Wine Co., Niagara Falls.	.....	.....	1·0309	0·9822
DISTRICT OF VICTORIA—										
Feb. 12	Native Wine.	62061	Dixi H. Ross, 1317 Governmentst., Victoria, B.C.	3 qts.	1.00	J. W. Lee, Co., Toronto.	.....	.....	1·0472	0·9661
" 12	"	62062	Victoria Liquor Co., Victoria, B.C.	3 "	1.00	Stamford Park Wine Co., Niagara Falls.	.....	.....	1·0432	0·9829
" 12	"	62065	H. O. Kirkham & Co., 741 Fort st., Victoria, B.C.	3 "	1.00	"	.....	.....	1·0443	0·9827

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NATIVE WINE.

Results of Analysis.																
Alcohol.			Grammes per 100cc.													
								Acidity.								
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert Sugar.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. tube Direct.	Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.	Preservatives.	Dyes.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
E. J. MORGAN, INSPECTOR.														
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.				
11 38	14 09	24 69	16 65	13 64	3 01	0 158	−17 0	0 795	0 067	0 711	Present.	None.	55168	Properly labelled.
9 64	11 96	20 96	11 13	9 00	2 13	0 212	−18 2	0 759	0 096	0 639	"	Present.	55169	"
11 23	13 90	24 36	16 54	14 66	1 88	0 248	−19 6	0 714	0 041	0 663	"	None.	55170	"
8 57	10 65	18 65	15 94	12 64	3 30	0 212	−27 6	0 654	0 093	0 538	"	Present.	55171	
12 09	14 84	26 00	11 94	8 49	3 45	0 280	−12 6	0 615	0 057	0 544	None	None.	55172	
12 54	15 49	27 15	10 71	7 58	3 13	0 280	− 5 4	0 612	0 060	0 537	"	Present.	55173	Properly labelled
13 15	16 24	28 46	11 18	8 77	2 41	0 264	− 3 4	0 630	0 034	0 587	"	"	55174	
10 62	13 15	23 04	10 56	7 20	3 36	0 276	− 9 6	0 825	0 140	0 639	"	None.	55175	Properly labelled
9 21	11 44	20 04	13 97	10 20	3 77	0 220	−23 4	0 735	0 082	0 633	"	Present.	55176	"
11 46	14 18	24 85	12 61	8 87	3 74	0 244	− 7 0	0 693	0 074	0 620	"	"	55177	
D. O'SULLIVAN, INSPECTOR.														
2 22	2 78	4 89	21 07	18 00	3 07	0 210	−14 3	0 660	0 117	0 514	Present.	None.	55161	Properly labelled
10 92	13 52	23 70	15 63	10 66	4 97	0 200	−23 8	0 696	0 031	0 [illegible]	"	"	55162	
11 08	13 71	24 03	15 97	12 64	3 33	0 188	−18 7	0 630	0 031	0 600	"	"	55163	Properly labelled

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Specific Gravity.	
				Quantity.	Cents.	Manufacturer.	Furnisher.		Of Wine.	Of Distillate.
			DISTRICT OF VICTORIA							
1915.										
Feb. 22	Native Wine.	62067	Victoria & Vancouver Importing Co., 1624 Government st., Victoria, B.C.	3 qts.	1 00	.....	R. P. Rithet & Co., Victoria.	.....	1·0216	0·9817
" 22	"	62068	Hudson's Bay Co., 1312 Douglas st. Victoria, B.C.	3 "	1.00	.....	Hudson's Bay Co., Victoria, B.C.	.....	1·0441	0·9853
" 22	"	62070	B. C. Wine Co., 1216 Douglas st. Victoria, B.C.	3 "	1.00	.. ....	B.C. Wine Co., Vancouver.	.....	1·0242	0·9812
" 27	"	62077	Pither & Leiser, Ltd., Fort and Wharf sts., Victoria, B.C.	3 pts.	50	Niag'a Falls Wine Co.	.....	....	1·0221	0·9818
" 27	"	62078	R. P. Rithet & Co., 1117 Wharf st., Victoria, B.C	3 "	50	"	. .....	. .....	1·0413	0·9849
" 27	.	62079	Hudson's Bay Co., 1120 Wharf st., Victoria, B.C.	3 "	50	"	..... .	. ...	1·0275	0·9824

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NATIVE WINE.

Results of Analysis.															
Alcohol.			Grammes per 100 cc.												
								Acidity.							
By Weight.	By Volume.	Proof Spirit.	Extract.	Reducing Sugar as Invert Sugar.	Non-Sugar Solids.	Ash.	Polarization in 200 mm. tube Direct.	Total as Tartaric.	Volatile as Acetic.	Fixed as Tartaric.	Preservatives.	Dyes.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.				
11·85	14·65	25·67	10·32	9·52	0·80	0·300	+ 3·6	0·657	0·038	0·614	None	None.	62067	Properly labelled.
9·14	11·35	19·89	15·24	11·99	3·25	0·156	−28·4	0·685	0·088	0·565	Present.	"	62068	
12·23	15·12	26·49	11·13	6·40	4·73	0·180	− 1·0	0·717	0·055	0·649	None	Present.	62070	
11·77	14·56	25·51	10·43	8·18	1·25	0·288	− 1·0	0·678	0·038	0·639	"	None	62077	
9·43	11·70	20·50	14·61	10·17	4·44	0·210	− 9·6	0·699	0·084	0·614	"	"	62078	
11·31	13·99	24·52	11·68	10·70	0·98	0·280	− 1·6	0·666	0·065	0·585	Present.	"	62079	

Concluded.

APPENDIX H.

BULLETIN No. 317—FERTILIZERS, 1915.

OTTAWA, September 2, 1915.

J. U. VINCENT, Esq.,
Deputy Minister, Inland Revenue.

SIR,—I beg to hand you a report upon Fertilisers as found on the Canadian market during the current year.

Four hundred and twenty (420) samples have been analyzed, of which number three hundred and eighty-two (382) are found to meet their guarantee, and sixteen (16) others approximate closely to the guaranty, or contain compensating values in certain ingredients, so that I have ventured to advise their acceptance as satisfactory.

Eleven (11) samples were offered for sale without the registration number appearing on the package, thereby violating the provisions of section 7 of the Act. It is certain that, in some cases at least, this omission is not the fault of the manufacturer; and the vendor must be held to be responsible.

Eleven (11) samples fail to meet their guarantee, and are specially noted in the report. In three (3) of these cases the deficiency is in the potash content. This component is particularly difficult to obtain, from the fact that imports from Germany, whose mines practically supply the world's potash are inhibited through war conditions. It may be proper to bear this fact in mind; and it is noteworthy that manufacturers have, for the most part, reduced the guaranteed content of potash in mixed fertilisers.

I beg to recommend publication of this report as Bulletin No. 317.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF NOVA SCOTIA—
1915.								
Apr. 7	Slag	64161	Nova Scotia Fert. Co., Halifax.	3 lbs.	Nil.	Staackman & Co., Anvers, Belgium.		
" 14	Bone Meal	64162	A. C. Melvin, & Halifax.	3 "	"	Nova Scotia Fert. Co., Halifax.		
" 14	Ceres Superphosphate.	64163	" "	3 "	"	"		
" 14	Acid phosphate.	64164	" "	3 "	"	"		
" 14	High Grade	64165	" "	3 "	"	"		
" 14	Potato Phosphate.	64166	" "	3 "	"	"		
" 14	10% Potato Phosphate.	64167	" "	3 "	"	"		
" 16	Ground Bone	64168	Halifax Seed Co., Halifax.	3 "	"	Lowell Fert. Co., Windsor.		
" 16	Potato Manure	64169	" "	3 "	"	"		
" 16	Nitrate of Soda.	64170	" "	3 "	"	Harab Davies Co.	Steele, Briggs Seed Co., Toronto.	
" 22	Basic Slag, A Quality.	64171	Truro Market Ltd., Truro.	3 "	"	Cross Fert. Co. Sydney.		
" 23	Soluble Bone and Potash.	64172	J. R. Cooke, Bridgewater.	3 "	"	National Fert Co., Boston.		
" 23	Market Garden Revised.	64173	" "	3 "	"	"		
" 23	All Round Fertilizer.	64174	H. O. Bates, Bridgewater.	3 "	"	Bowker Fert. Co., Boston.		
" 23	Potato Phosphate.	64175	" "	3 "	"	"		
" 26	Special 5-8-4	64176	Lowell Fert. Co., Windsor.	3 lbs.	Nil.	Vendors		
" 26	Special Potato and Vegetable 4-8-4.	64177	" "	3 "	"	"		
" 26	Fish and Potash.	64178	Essex Fert. Co., Windsor.	3 "	"	"		
" 26	1-8-2	64179	" "	3 "	"	"		
" 26	4½-8-4	64180	Colonial Fert. Co., Windsor.	3 "	"	"		

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis.							Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Nitrogen p.c.		Phosphoric Acid per cent.								
		Total: including that of Nitric Acid or Ammonia, if present.	Total: Calculated as Ammonia.	Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total Available.				
R. J. WAUGH, INSPECTOR.												
		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		
971	As guaranteed	.....	.....	.....	12·0	2 0	14·0	12·0	..	..	64161	Meets guaranty.
	As found. ..	....	....	....	13·08	1 98	15 06	13·08		....		
44	As guaranteed	..	3·0	.....	.. .	..	23·0	....	....	....	64162	4% low in phosphoric acid
	As found.....	2·88	3 5	....	....	.....	18·84	..	.....	....		
1395	As guaranteed	1·64	2·0	5·0	2 0	2 0	9·0	7·0	1·0	..	64165	Low in phosphoric acid, but much above guaranteed value. Pass
	As found	2·76	3·35	5·73	0 47	0 55	6·75	6 20	7 40	..		
1384	As guaranteed	.	....	....	16 0	2 0	18 0	16 0	..	..	64164	Meets guaranty.
	As found	....	....	.....	15 97	2·25	18·22	15 97	.			
1396	As guaranteed	3 28	4 0	4·5	1·5	2 0	8 0	6 0	4 0		64163	
	As found	3 13	3 89	6·88	0·34	0 60	7·82	7·22	7 64			
1394	As guaranteed	1 64	2 0	5 0	2 0	2 0	9 0	7 0	0 50		64166	
	As found	2 90	3·52	6 98	0 31	0 64	7 93	7 29	3 66			
1391	As guaranteed	2·05	2 5	4·0	2 0	2 0	8·0	6 0	4 0		64167	2% low in phosphoric acid, but much above guaranteed value. Pass
	As found ..	3·44	4 18	5 50	0 34	0 49	6 13	5 64	6 80			
807	As guaranteed	2·46	3·0	.			23 0	.	.		64168	Meets guaranty
	As found	2 51	3·05	.	....	....	28 25	..				
804	As guaranteed	1 64	2 0	3 0	4 0	1 0	8 0	7 0	4 0		64169	
	As found .. .	1 66	2 02	6 10	1 49	0 71	8 33	7 59	3 59			
1282	As guaranteed	15 0	18·3								64170	
	As found .	15 0	18 22	.. .	.	.	....	.	.			
1067	As guaranteed		.		10 0	4 0	14 0	10 0	.		64171	Nearly meet guaranty. Pass
	As found ...				10 13	2 50	12 65	10 13				
1178	As guaranteed	...	.	6 0	4 0	1 0	11 0	10 0	2 0		64172	Meets guaranty
	As found .	.		4 65	4 84	1 71	11 20	9 49	2 19			
1182	As guaranteed	2 47	3 0	4 0	4 0	1 0	9 0	8 0	3 0		64173	
	As found ...	2 55	3 10	4 0	4 69	1 41	10 10	8 69	3 08			
1090	As guaranteed	2 47	3 0	4 0	4 0	1 0	9 0	8 0	3 0		64174	
	As found	2 49	3 03	4 55	3 69	1 44	9 08	8 24	3 34			
1092	As guaranteed	1 65	2 0	4 0	4 0	1 0	9 0	8 0	2 0		64175	
	As found	1 74	2 11	5 13	5 58	1 42	10 13	8 71	2 27			
1205	As guaranteed	4 10	5 0	4 0	4 0	1 0	9 0	8 0	4 0		64176	
	As found	4 35	5 28	6 48	1 61	0 64	8 73	8 09	5 13			
1297	As guaranteed	3 28	4 0	4 0	4 0	1 0	9 0	8 0	4 0		64177	
	As found	3 48	4 23	6 43	1 95	0 62	9 0	8 38	4 18			
702	As guaranteed	2 0	2 5	4 0	4 0	1 0	9 0	8 0	3 0		64178	
	As found	2 95	3 64	6 15	1 20	0 74	8 1	7 41	6 0			
1201	As guaranteed	0 82	1 0	4 0	4 0	1 0	9 0	8 0	3 0		64179	
	As found	1 40	1 70	6 40	1 0	1 0	8 40	7 40	5 38			
1175	As guaranteed	3 69	4 5	4 0	4 0	1 0	9 0	8 0	4 0		64180	
	As found	4 52	5 5	5 78	1 40	0 39	7 80	7 80	8 40			

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cost.	Manufacturer.	Furnisher.	
DISTRICT OF NOVA SCOTIA—								
1915.								
April 26	Grain and Grass.	64181	Colonial Fert. Co., Windsor.	3 lbs.	Nil.	Vendors		
" 26	Potato Special..	64182	Pigeon Fert. Co., Windsor.	3 "	"	"		
" 26	New England Ground Bone.	64183	New England Fert. Co., Windsor.	3 "	"	"		
" 26	Special Complete Root and Grain.	64184	Hants Co. Fruit and Produce Co., Ltd., Windsor.	3 "	"	National Fert. Co., Boston.		
" 26	Special Potato Phosphate.	64185	" " ..	3 "	"	"		
" 27	Square Brand...	64186	Burgess & Co., Wolfville.	3 "	"	Bowker Fert. Co., Boston.		
" 27	Stockbridge Manure.	64187	" " ..	3 "	"	"		
" 27	Sure Crop.....	64188	" " ..	3 "	"	"		
" 27	Ground Bone...	64189	" " ..	3 "	"	"		
" 27	Bradley's XL Superphosphate of Lime.	64190	" " ..	3 "	"	Amer. Agr. Chem. Co., New York.		
" 27	Bradley's Eclipse Phosphate.	64191	" " .	3 "	"	"		
" 27	Pacific Guano...	64192	" " ..	3 "	"	"		
" 27	Read's Sure Catch.	64193	" " ..	3 "	"	"		
" 29	Fish, Bone and Potash.	64194	United Fruit Co., Kentville.	3 "	"	Baugh Sons Co., Baltimore.		
" 29	Acid Phosphate.	64195	" " ..	3 "	"	"		
" 29	Baugh's Ground Bone.	64196	" " ..	3 "	"	"		
DISTRICT OF NEW BRUNSWICK—								
Mar. 8	Bowker's Potash Bone.	65914	D. J. Seely & Sons, St. John.	3 jars.	10	Bowker Fert. Co., Boston.		
" 8	Bowker's Fresh Ground Bone.	65915	" "	3 "	10	"		
" 8	Bowker's All Round Fertilizer.	65916	" "	3 "	10	"		
" 8	Bowker's Bone and Potash, Square Brand.	65917	" "	3 "	10	"		
8	Stockbridge General Crop Manure	65918	" "	3 "	10	"		

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c.: Total; Including that of Nitric Acid or Ammonia, if present.	Nitrogen p.c.: Total; Calculated as Ammonia.	Phosphoric Acid per cent.: Soluble in Water.	Phosphoric Acid per cent.: Reverted or Citrate Soluble.	Phosphoric Acid per cent.: Soluble.	Phosphoric Acid per cent.: Total.	Phosphoric Acid per cent.: Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
766	As guaranteed	1·25	1·5	3·0	4·0	1·0	8·0	7·0	2·0	.....	64181	Meets guaranty.
	As found	3·79	4·60	5·85	0·83	0·57	7·25	6·68	3·48	...		
1241	As guaranteed	2·46	3·0	4·0	1·0	1·0	9·0	8·0	4·0	.....	64182	"
	As found.....	3·47	4·22	6·43	1·75	0·55	8·73	8·18	5·87	....		
819	As guaranteed	2·46	3·0	...	.....	.....	23·0	. .	.....	.....	64183	3% below guaranty in phosphoric acid).
	As found.	2·79	3·39	.....	....	..	20·06	. . .	....	.....		
1186	As guaranteed	3·29	4·0	4·0	4·0	1·0	9·0	8·0	4·0	....	64184	Meets guaranty.
	As found.....	3·68	4·47	5·13	3·21	1·21	9·55	8·34	4·47	.		
1180	As guaranteed	2·06	2·5	4·0	4·0	1·0	9·0	8·0	3·0	. .	64185	"
	As found...	2·11	2·56	4·80	3·66	1·92	10·38	8·46	2·67	.		
1091	As guaranteed	1·65	2·0	4·0	4·0	1·0	9·0	8·0	2·0	.....	64186	"
	As found.....	1·59	1·93	3·78	4·83	1·52	10·13	8·61	2·33	...		
1089	As guaranteed	3·29	4·0	4·0	4·0	1·0	9·0	8·0	4·0	. .	64187	"
	As found....	3·12	3·79	4·58	3·61	1·19	9·78	8·19	3·92	..		
1093	As guaranteed	0·82	1·0	5·0	4·0	1·0	10·0	9·0	2·0	..	64188	"
	As found ...	1·03	1·25	5·33	4·55	1·74	11·60	9·86	1·91	...		
101	As guaranteed	2·47	3·0	...	...	....	20·59	..	...	....	64189	"
	As found.. ..	2·71	3·33	....	.	.	23·97	.	.	...		
1117	As guaranteed	2·06	2·5	4·0	4·0	1·0	9·0	8·0	1·5	.	64190	"
	As found...	2·02	2·46	5·05	3·0	1·90	9·95	8·05	1·63	.		
4	As guaranteed	1·03	1·25	6·0	2·0	1·0	9·0	8·0	2·0	.	64191	"
	As found	1·17	1·42	4·73	3·67	1·0	9·40	8·40	2·37	.		
1130	As guaranteed	2·06	2·5	4·0	4·0	1·0	9·0	8·0	1·5	.	64192	"
	As found	2·04	2·48	4·10	4·25	1·40	9·75	8·35	1·58	.		
1127	As guaranteed	.		6·0	4·0	1·0	11·0	10·0	2·0	.	64193	"
	As found			7·18	2·19	1·80	11·23	9·37	2·12	.		
1091	As guaranteed	3·30	4·0	6·22	1·78	1·72	9·72	8·0	4·0	.	64194	"
	As found ..	3·27	3·97	7·08	1·30	1·51	9·95	8·44	4·07	.		
848	As guaranteed		....	....	16·0	0·30	16·30	16·0	. .	....	64195	"
	As found				16·0	0·30	16·30	16·0				
1062	As guaranteed	1·87	2·28		12·85	16·0	28·85	12·85			64196	"
	As found ...	2·57	3·12		17·89	8·70	26·59	17·89				

J. C. FERGUSON, INSPECTOR.

1091	As guaranteed	0·82	1	4	4	1	9	8	1		6901	Meets guaranty
	As found	0·99	1·20	4·9	3·62	1·45	10·0	8·0	1·66			
101	As guaranteed	2·47	3				20·59				6901	
	As found	2·50	3·04				26·56					
1090	As guaranteed	2·47	3	4	4	1	9	8	8		6901	
	As found	2·71	3·33	4·23	3·50	1·17	8·90	7·73	5·21			
1091	As guaranteed	1·65	2	4	4	1	9	8	2		6901	
	As found	1·91	2·32	3·85	4·72	1·51	10·08	8·57	2·16			
1089	As guaranteed	3·29	4	4	4	1	9	8	4		6901	
	As found	3·48	4·23	4·72	3·86	1·37	10·05	8·68	3·97			

BULLETIN No. 317—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
			DISTRICT OF NEW BRUNSWICK—					
1915.								
Mar. 8	Bowker's Potato Phosphate.	65919	D.J. Seely & Sons, St. Johns.	3 jars.	10	Bowker Fert. Co., Boston.		
" 8	Bowker's Sure Crop Phosphate	65920	" "	3 "	10	"		
" 11	Thomas Phosphate Powder	65921	The Anglo-Canadian Chem. Co., St. John.	3 "	10	Late H. E. Albert Chem. Works, London, Eng.		
" 11	Special Odourless Potato Phosphate.	65922	" "	3 "	10	"		
" 17	Provincial No. 1 One-Eight-One	65923	Provincial Chem. Fert. Co., St. John.	3 "	10	Vendors		
" 17	Provincial No. 2 One-Nine-3.	65924	" "	3 "	10	"		
" 17	Provincial No. 3 Two & half-Nine-One.	65925	" "	3 "	10	"		
" 17	Provincial No. 4 Two-Nine-Three.	65926	" "	3 "	10	"		
" 17	Provincial No. 5 Two-Eight-Four.	65927	" "	3 "	10	"		
" 17	Provincial No. 6 Three-Nine-Four.	65928	" "	3 "	10	"		
" 17	Provincial No. 7 Four-Nine-Four.	65929	" "	3 "	10	"		
" 17	Provincial No. 8, Four and half-Nine-Four.	65930	Provincial Chem. Fert. Co., St. John.	3 jars.	10	"		
" 17	Provincial No. 9, Five-Nine Four.	65931	"	3 "	10	"		
" 23	4-8-4	65932	Dominion Fert. Co., Ltd., St. Stephen.	3 "	10	"		
" 23	5-8-4	65933	"	3 "	10	"		
" 23	4½-10-4	65934	"	3 "	10	"		
" 23	2-9-2	65935	"	3 "	10	"		
" 23	4½-9-3	65936	"	3 "	10	"		
" 23	1-8-2	65937	"	3 "	10	"		
" 23	3-8-3	65938	"	3 "	10	"		
23	4-8-3	65939	"	3 "	10	"		

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total, including that of Nitric Acid or Ammonia if present	Nitrogen p.c. Total, calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Continued.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
1092	As guaranteed	1·65	2	4	4	1	9	8	2	.....	65919	Meets guaranty.
	As found.....	1 74	2·12	3·30	4·98	1·47	9 75	8·28	1 97	.....		
97	As guaranteed	0·82	1	6	2	1	9	8	2	....	65920	"
	As found.....	0·84	1·02	6·75	2·46	1·02	10·23	9·21	2·40	....		
1	As guaranteed	.....	.....	.. ...	12·	...	.....	15	....	.....	65921	"
	As found	.....	... ..	.....	13·65	.....	.....	15·40	.. ..	....		
142	As guaranteed	2	....	.....	.....	.....	7	. ...	7	..	65922	Two per cent low in potash.
	As found.....	2 35	2·90	..	.....	.....	9 55	.....	4 40	.....		
1098	As guaranteed	·8	1	5	2	1	8	7	1	..	65923	Meets guaranty
	As found.....	·90	1·09	6·10	1·91	1·04	9·05	8·01	1·19	....		
1099	As guaranteed	·8	1	6	2	1	9	8	3	...	65924	"
	As found.....	·88	1·07	6 80	2 21	1·12	10 13	9 01	2 98	...		
1100	As guaranteed	2·	2·5	6	3	1	10	9	1	.....	65925	"
	As found.....	2·15	2 61	7	2·66	1·27	10·93	9 66	1·95	.....		
1101	As guaranteed	1·6	2·	6	2	1	9	8	3	.	65926	"
	As found....	1·69	2·05	6 92	2 35	1 06	10·33	9 27	3·65	....		
1102	As guaranteed	1·6	2·	5	2	1	8	7	4	....	65927	"
	As found....	1 78	2 16	5 98	2 38	0 95	9 31	8 36	4 80	....		
1103	As guaranteed	2·4	3	6	2	1	9	8	4	....	65928	"
	As found.....	2 53	3·08	6 23	2 41	0 94	9·58	8 64	4·64	....		
1104	As guaranteed	3 3	4·	6	2	1	9	8	4	....	65929	"
	As found....	3 31	4 01	6 65	2 51	0 97	10 13	9 16	4 64	....		
1105	As guaranteed	3 7	4·5	6	2	1	9	8	4	....	65930	"
	As found....	3 85	4 67	7 48	2 35	1·32	11 15	9 83	4 86	....		
1106	As guaranteed	4 1	5	6	2	1	9	8	4	....	65931	"
	As found	3 87	4 70	6 70	2 32	1 11	10 13	9·02	4 52	....		
1163	As guaranteed	3 3	4	6	2	1	9	8	4	....	65932	"
	As found....	3 38	4·10	7 25	1 00	0·67	8·92	8 25	4 27	....		
1107	As guaranteed	4 1	5	6	2	1	9	8	4	....	65933	"
	As found....	4 03	4 90	7 00	1 08	·62	8·70	8 08	4 13	....		
1166	As guaranteed	3 7	4·5	7	3	1	11	10	4	....	65934	"
	As found	4 13	5·02	8 22	1 61	·92	10 75	9 83	4 16	....		
1161	As guaranteed	1 6	2	7	2	1	10	9	2	....	65935	"
	As found....	1 92	2 34	7 33	1 76	0 81	9 90	9 09	2 43	....		
1164	As guaranteed	3 7	4·5	7	2	1	10	9	3	....	65936	"
	As found	3 97	4 82	7 55	1 43	·64	9 62	8 98	3 40	....		
1160	As guaranteed	0 8	1	6	2	1	9	8	2	....	65937	"
	As found....	1 11	1 35	6 33	1 90	·79	9 02	8 23	2 19	....		
1162	As guaranteed	2 5	3	6	2	1	9	8	3	....	65938	"
	As found	2 53	3 08	6 92	1 19	·74	8 85	8 11	3 11	....		
1165	As guaranteed	3 3	4	6	2	1	9	8	3	....	65939	"
	As found....	3 26	3·96	6 92	1 43	·65	8 98	8 33	3 11	....		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of Opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF NEW BRUNSWICK—								
1915.								
Mar. 23	Bradley's Eclipse	65940	Hill Bros., St Stephen.	3 jars.	10	Amer. Agr. Chem. Co., New York.	....	.....
" 23	Bradley's XL Superphosphate of Lime.	65941	"	3 "	10	"	.....	.....
" 23	Bradley's Special High Grade Fertilizers.	65942	"	3 "	10	"	....	.....
" 23	Bradley's Potato	65943	"	3 "	10	"	....	.....
April 8	Basic Slag, A Quality.	65944	Toombs & Son, Moncton.	3 jars.	10	Cross Fert. Co., Sydney.	....	.....
" 8	Potato Special .	65945	" ..	3 "	10	Am. Ag. Chem. Co., N. York	....	.....
" 8	General Guano..	65946	" ..	3 "	10	" ..	.....	.....
" 8	Fine Ground Bone.	65947	" ..	3 "	10	" ..	.....	.....
" 22	Ground Bone...	65948	F. H. Everett, Fredericton.	3 "	15	Lowell Fert. Co., Windsor.	.. ..	.....
" 22	Special Potato Phosphate.	65949	" ..	3 "	15	" ..	.....	.....
" 22	Potato Manure.	65950	" ..	3 "	15	" ..	.....	.....
" 22	New England Superphosphate	65951	Sansom & McNally Fredericton.	3 "	15	New England Fert. Co., Windsor.	.....	.....
" 22	New England Potato Manure	65952	" ..	3 "	15	" ..	.....	.....
" 22	Peerless.....	65953	" ..	3 "	15	"	... .	.....
" 23	Grass and Oats.	65954	Perley, Smith & Co., Woodstock.	3 "	Nil.	Am. Ag. Chem Co., N. York	.....	.....
" 24	Bradley's A. A Special Potato Grower.	65955	Porter Manzer, Ltd., Perth, N. B	3 "	"	" ..	.....	.....
" 24	Darling Special Blood Bone & Potash.	65956	" ..	3 "	"	" ..	.....	.....
DISTRICT OF QUEBEC CITY—								
Feb. 9	Havana Tobacco	56309	Eug. Julien & Cie, Quebec.	.....	....	Amer. Agr. Chem. Co.	....	.....
" 9	Juliens Canadian Special.	56310	" " ..	.... .	....	" ..	....	.....
" 9	Canadian Potash	56311	" " ..	.....	....	" ..	.....	.....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: including that Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Phosphoric Acid per cent. Reverted or Citrate Soluble.	Phosphoric Acid per cent. Insoluble.	Phosphoric Acid per cent. Total.	Phosphoric Acid per cent. Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p. c.		
1115	As guaranteed	1·03	1·25	4	4	1	9	8	2	....	65940	Meets guarantee
	As found.....	1·09	1·32	4·10	4·42	1·20	9·72	8·52	2·17	...		
1117	As guaranteed	2·06	2·5	4	4	1	9	8	1·5	....	65941	"
	As found.. ..	2·29	2·78	4·58	4·23	1·52	10·33	8·81	1·73	.....		
1123	As guaranteed	2·88	3·5	4	4	1	9	8	4	.....	65942	"
	As found.....	3·04	3·70	4·72	4·60	1·20	10·52	9·32	4·50	....		
1134	As guaranteed	2·06	2·5	4	4	1	9	8	3	....	65943	"
	As found.. ..	2·28	2·77	4·50	4·36	1·47	10·33	8·86	3·11	..		
557	As guaranteed	...	....	.....	12·8	.....	.....	.....	.....	.....	65944	"
	As found.....	.....	...	....	13·10	.....	13·03					
1129	As guaranteed	2·06	2·5	4	4	1	9	8	3	...	65945	"
	As found....	2·07	2·52	4·35	4·23	1·14	9·72	8·58	3·77			
1135	As guaranteed	1·03	1·25	4	4	1	9	8	2	..	65946	"
	As found. ...	1·19	1·45	5·60	4·63	1·35	11·58	10·23	2·24			
1139	As guaranteed	2·47	3	..	8·24	12·35	20·59	8·24	...	..	65947	"
	As found....	2·56	3·11	..	15·52	7·38	22·90	15·52				
807	As guaranteed	2·46	3	...	...	....	23·0	..	..	..	65948	"
	As found ...	2·46	3		....	..	27·41					
1208	As guaranteed	2·46	3	4	4	1	9	8	4	...	65949	"
	As found.....	2·39	2·91	6·28	2·26	·66	9·20	8·54	3·88			
804	As guaranteed	1·64	2	3	1	1	8	7	4		65950	"
	As found	1·71	2·08	5·35	2·44	·54	8·33	7·79	3·63			
811	As guaranteed	2·46	3	4	4	1	9	8	3		65951	"
	As found ..	2·59	3·15	6·70	1·67	·66	9·03	8·37	3·70			
814	As guaranteed	1·64	2	4	3	1	8	7	4		65952	"
	As found ..	1·67	2·03	5·43	2·10	·50	8·03	7·53	3·60			
815	As guaranteed	0·82	1	4	3	1	8	7	1	....	65953	"
	As found ..	1·73	2·10	4·48	3·50	·72	8·70	7·98	3·15			
1154	As guaranteed	..	.	7	4	1	12	11	2		65954	"
	As found.....	..	..	4·98	5·48	1·82	12·28	10·46	1·94			
1138	As guaranteed	3·7	4·5	6	4	1	11	10	4		65955	"
	As found ..	3·77	4·58	7·33	2·68	1·41	11·45	10·01	4·02			
1133	As guaranteed	4·11	5	5	4	1	10	9	4	..	65956	"
	As found ..	4·11	5	6·73	3·02	1·50	11·25	9·76	3·48			

F. X. W. E. BELAND, INSPECTOR.

686	As guaranteed	1·65	2·0	6·0	2·0	1·0	9·0	8·0	4·0	..	58809	Meets guarantee
	As found ..	1·37	1·70	1·82	6·96	0·76	9·68	8·77	3·65			
685	As guaranteed	1·65	2·0	6·0	2·0	1·0	9·0	8·0	3·0		58810	"
	As found ..	1·58	1·96	5·20	3·30	1·20	9·70	8·50	3·30			
335	As guaranteed	0·82	1·0	4·0	2·0	1·0	7·0	6·0	3·0		58811	"
	As found ..	0·84	1·0	3·58	4·89	0·30	8·77	8·47	3·11			

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF QUEBEC CITY—
1915.								
Feb. 9	Complete Manure.	56312	Eug. Julien & Cie. Quebec.			Amer. Agr Chem. Co.		
" 9	General Tobacco	56313	" "			"		
" 9	Thomas Phosphate.	56314	" "			The Leeds Phosphate Wks., Buffalo		
" 9	Reliable	56315	" "			Amer. Agr. Chem. Co., Buffalo.		
" 11	Nitrate of Soda.	56316	J. B. Renaud & Cie, Quebec.			British Oil & Cake Mills.		
" 11	Basic Phosphate.	56317	" "			Hickman Ltd., Bilston.		
" 11	Sulphate of Potash.	56318	" "			British Oil & Cake Mills.		
" 17	Superphosphate.	56319	F. Canac Marquis, Quebec.			Vendors		
" 17	Guano du Globe.	56320	" "			"		
" 17	Phosphate Quebec.	56321	" "			"		
" 17	Montcalm	56322	" "			"		
" 17	Joliette	56323	" "			"		
" 19	Virgina Tobacco XXX.	56324	P. T. Legare, Ltd. Quebec.			Am. Agt, Chem. Co.		
" 19	Complete Fertilizers.	56325	" "			" "		
" 19	Special Fruit and Vine.	56326	" "			" "		
" 19	Defiance	56327	" "			" "		
" 19	Thomas Phosphate.	56328	" "			Cross Fert. Co. Sydney.		
" 19	Legare's Special Corn.	56329	" "			Cap. Chem. Fert. Co., Buckingham		
Mar. 4	Capital	56501	G. Tanguay, Quebec.			Vendors		
" 3	Monarch Guano	56502	" "			"		
" 3	Royal Guano	56503	" "			"		
" 4	Nestor	56504	" "			"		
" 4	Celtic	56505	" "			"		
" 3	Nestor Guano	56506	" "			"		
" 3	Union Guano	56507	" "			"		

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: including that of Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Continued.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
226	As guaranteed	2·06	2·50	6·0	2·0	1·0	9 0	8·0	3·0	.....	56312	Meets guaranty
	As found.....	1·89	2·38	2·65	5·56	1·08	9·29	8·21	2 70			
881	As guaranteed	0·82	1·0	4·0	1·0	1·0	6·0	5·0	7·0	....	56313	"
	As found.....	1·02	1·27	4 96	0·29	1·0	6·25	5·25	6·80			
253	As guaranteed	.....	...	.....	.. .	....	18·0	.....	.....	75·0	56314	"
	As found.....	. .	.....	.....	.....	....	17·94	.....	.....	80·0		
880	As guaranteed	0·82	1·0	3·0	1·0	1·0	5·0	4·0	3 0	.. .	56315	"
	As found.....	0·63	0·78	1·08	4·41	0 74	6 23	5 49	3·27			
273	As guaranteed	15·0	18·5	. ....	.....	.....	.....	.	....	...	56316	"
	As found.....	15·04	18·6	.....	....	.....	...	.....	....	.....		
302	As guaranteed	....	. .	...	15·40	3 85	19 25	15 40	.....	85 0	56317	"
	As found.....	.....	.....	. .	15·70	....	20 25	.....	.....	.....		
299	As guaranteed	.....	.....	.....	.....	.....	.....	. .	48 0	..	56318	"
	As found.....	.....	....	....	....	.....	....	.....	47 3	....		
911	As guaranteed	0 82	1 0	6·0	1·0	1 0	8 0	7 0	2 0	.. ..	56319	"
	As found. ...	1·55	1·93	2 22	7·32	4 48	14 02	9·54	3 05	...		
912	As guaranteed	0·82	1 0	3·25	0·75	1 0	5·0	4 0	6 0	.....	56320	"
	As found	1 00	1·24	1 48	6·56	2·54	10 58	8 04	7 20	.....		
913	As guaranteed	1 65	2 0	6·75	1·25	1 0	9 0	8 0	3 0		56321	"
	As found	1·32	1 64	3·55	7·88	2 66	14 09	11 43	4 87			
914	As guaranteed	1 65	2 0	3 25	0 75	1·0	5 0	4 0	6 0	. .	56322	"
	As found....	1·36	1·69	1·80	7·86	2 45	12 11	9 66	6 49			
1107	As guaranteed	2 47	3 0	6·0	1·0	1·0	8 0	7·0	10 0	.	56323	"
	As found	1·59	1 97	4 14	6 15	5 16	15 45	10 29	9 56			
1222	As guaranteed	.	2 0	.	...	..	8 0	...	3 0	.....	56324	"
	As found . .	1·52	1·89	4 06	4 35	1 27	9 68	8·41	2 90			
1221	As guaranteed	.	2 0	...	.		8 0	.	3 0		56325	"
	As found. .	1 61	2 0	4·20	3 88	1 52	9 60	8 08	2 97			
1227	As guaranteed	...	3 0	.	...	.	10 0		3 0		56326	"
	As found. .	2 41	3 0	6 79	3 87	1 46	12 12	10 66	2 82			
1220	As guaranteed	.	2 0	.			8 0		2 0		56327	"
	As found. ...	1 65	2 0	2·46	5 99	1 46	9 91	8 45	2 07			
891	As guaranteed	.....		..	13 60		17 00			80 0	56328	"
	As found ..	....	. .	....	15 15	.	16 44			85 00		
933	As guaranteed	.	1 0				8 0		2 0		56329	"
	As found	1 45	1 80	....	8 77	2 65	11 43	8 78	1 96			
946	As guaranteed	...	5 0	.			8 0		6 0		56330	"
	As found.. ...	4 09	5 0	2·6	8 73	4 07	15 04	11 33	6 97			
1403	As guaranteed		3 5				8 0		2 0		56331	"
	As found....	3 90	4 80	4 2	3 95	1 25	9 6	8 35	2 92			
1402	As guaranteed	.	3 5		9 0				2 0		56332	"
	As found.....	4 22	5 2	6 2	4 15	0 95	11 3	10 35	2 31			
952	As guaranteed	.	2 0	.			8 0		3 0		56333	"
	As found. .	1 56	1 9	3 1	5 93	1 27	10 3	9 03	4 54			
953	As guaranteed	....					10 0		5 0		56334	"
	As found..	.....		3 45	7 50	0 8	11 75	10 95	6 2			
1079	As guaranteed		2 5		10 0						56335	"
	As found..	2 65	3 3	8 6	3 33	0 97	12 9	11 93				
1078	As guaranteed		3 5				10 0				56336	"
	As found....	3 17	3 9	8 7	2 8	1 2	12 7	11 5				

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
			DISTRICT OF QUEBEC CITY					
1915.								
Mar. 3	Celtic Guano	56508	Geo. Tanguay, Quebec.			Vendor		
" 3	Star Guano	56509	" "			"		
" 3	Superphosphate	56510	" "			"		
" 3	Banner	56511	" "			"		
" 3	Potato Guano	56512	" "			"		
" 3	International Tobacco	56513	" "			"		
" 4	General Phosphate Thomas.	56514	" "			"		
" 4	Union Guano	56515	" "			"		
" 4	Grain Guano	56516	" "			"		
			DISTRICT OF QUEBEC PROVINCE—					
Feb. 17	Fertilizer	2890	D. Audet, Ste. Malachi.				E. Julien, Quebec.	
" 17	"	2892	Dorchester Lumber, Ste. Malachi				"	
" 23	Banner	3804	Lacasse and Audet, St. Edward.					
" 23	Celtic	3805	" "					
" 23	Fertilizer	3806	"			Geo. Tanguay, Quebec.		
" 23	Phosphate	3808	Philip Gregoire, Ste. Angel Beauce.			Bowker Fert. Co., Boston.		
" 26	Complete Fertilizer.	3813	P. Gagnon, Ste. Marie Beauce.					
Mar. 2	Fertilizer	3819	M. Larochelle, Ste. Germaine.				P.T. Lagare, Quebec.	
" 10	Fertilizer	3824	G. Doyon, Beauce.				P.T. Lagare, Quebec.	
" 11	Muriate of Potash.	3825	A. Roy, St. Frederique.					
" 11	Fertilizer	3826	" "			Nitrate Agencies, New York.		
" 12	Potato Phosphate.	3827	N. Plante, St. Frederique.			Bowkerfert Co., Boston.		

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total, including that of Nitric Acid or Ammonia if present.	Nitrogen p.c. Total, calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Phosphoric Acid per cent. Reverted or Citrate Soluble.	Phosphoric Acid per cent. Insoluble.	Phosphoric Acid per cent. Total.	Phosphoric Acid per cent. Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
1075	As guaranteed	....	1·0	....	....	.....	....	8 0	2 0	....	56508	Meets guaranty.
	As found.....	1·18	1·5	1 9	8 5	1·2	11·6	10·4	2 27	.....	....	
1082	As guaranteed	.....	2·0	....	.....	.....	10 0	.....	.....	.....	56509	"
	As found.....	2 03	2·5	8·5	3·53	1·07	13 1	12·03	....	....	.	
958	As guaranteed	.. .	.....	16 0	.....	1·0	17·0	16 0	.....	.....	56510	"
	As found.....	.....	.....	15 31	1·62	1·57	18·50	16·93	....	.. .		
1081	As guaranteed	....	2·0	.	.....	.....	8 0	....	2 0	.....	56511	"
	As found ...	1·89	2·3	2·7	8·08	1·02	11 8	10 78	3 40	...		
1076	As guaranteed	..	2 0	....	.....	.....	8·0	....	2 0	....	56512	"
	As found. ...	2·32	2 9	2·83	5·92	1·25	10 0	8 75	4 31	. .		
755	As guaranteed	....	2·0	....	.....	.....	8·0	....	4 0	.....	56513	"
	As found.....	2·19	2·7	0 34	8·75	0·85	9 94	9·09	5·03	.. ..		
1083	As guaranteed	..	....	.....	14·0	....	16·0	..	.....	....	56514	"
	As found.....	.... .	..	.....	15·8	.....	16·19	...	.....	81 00		
945	As guaranteed	.. ..	4 0	....	.....	.....	11 0	. .	.....	.....	56515	"
	As found ..	2·45	3·0	8·62	2 44	1·2	12·26	11·06		. .		
1080	As guaranteed	.....	1 0	.. .	...	.	8·0	..	1 0	.....	56516	"
	As found.....	0·84	1·0	3·58	6·86	1 12	11·56	10·44	1·35			

J. E. AUDET, O. BROCHU, T. GENDRON, TEMPORARY INSPECTORS.

220	As guaranteed	2 06	2 5	6 0	2 0	1·0	9 0	8 0	3 0	...	2890	Meets guaranty.
	As found ...	2 09	2 6	3 0	5 57	1 37	9 94	8·57	2 78			
253	As guaranteed	...	...			.	18 00			75 00	2892	"
	As found .						19 19			85 50		
1081	As guaranteed	1 05	2 0	6 0	2 0	1 0	9 0	8·0	2 0	.	3804	"
	As found ..	1 50	1 83	3 02	7 59	1 45	12 06	10 61	2 05			
1075	As guaranteed	0 85	1 0	6 0	2 0	1 0	9 0	8 0	2 0	...	3805	
	As found .	0 81	0 98			2 52	12 06	9 54	1 47			"
1074	As guaranteed	.			15 75	1 25	17 00	.	.	80 00	3806	2 75 p.c. below guaranty in phosphoric acid
	As found ...				13 75		14 25					
1093	As guaranteed	0 82	1 0	5 0	4 0	1 0	10 0	9 0	2 0		3807	
	As found	0 96	1 2	4 98	4 30	1 57	10 87	9 32	2 05			Meets guaranty.
1221	As guaranteed	1 05	2 0	4 0	4 0	1 0	9 0	8 0	3 0		3813	"
	As found	1 70	2 0	5 18	3 67	1 37	10 5	9 15	3 34			
1227	As guaranteed	2 47	3 0	6 0	4 0	1 0	11 0	10 0	3 0		3812	"
	As found	2 39	2 90	8 0	4 8	1 52	13 38	12 86	3 05			
1220	As guaranteed	1 05	2 0	4 0	4 0	1 0	9 0	8 0	2 0		3824	"
	As found	1 41	1 7	1 7	6 2	0 9	8 88	7 99	2 8			
968	As guaranteed								48 0		3825	"
	As found								51 8			
246	As guaranteed							14 0			3826	"
	As found					2 2	18 19	15 99				
1192	As guaranteed	1 05	2 0	4 0	4 0	1 0	9 0	8 0	2 0		3827	"
	As found	1 68	2 0	4 7	4 19	1 07	10 76	8 69	3 14			

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion.)
DISTRICT OF QUEBEC PROVINCE—								
1915.								
Mar. 4	Superphosphate with Potash.	3842	J. Nadeau, St. Severin.	.....	....	Bowkerfert Co., Boston.	.....	.....
" 4	Potash.....	3844	S. Vachon, St. Elzear.	.....	..	.....	E. Julien, Quebec.	.....
" 9	Thomas Phosphate.	3529	J. A. Bélanger, St. Lazare.	3 lbs.	10	.....	P. T. Legare Quebec.	.....
" 9	Complete.....	3530	" "	3 "	10	.....	" "	.....
" 9	"	3532	Philibert Lavalle, Burland.	3 "	10	.....	" "	.....
" 10	Phosphate Lime.	3533	L. P. Bolduc, Ste. Sabine.	3 "	10	.....	E. Julien, Quebec.	.....
" 16	Complete.	3534	George Roy, St. Raphael.	3 "	10	.....	P. T. Legare,	.....
" 17	Acme Fertilizer.	3537	J. R. Laflamme, St. Gervais.	3 "	10	Lesage Packing Co. Montreal.	.....	.....
" 18	Thomas Phosphate.	3538	Alphonse Dion, Honfleur.	3 "	10	Geo. Tanguay, Quebec.	.....	.....
" 18	International...	3539	" "	3 "	10	" "	.....	.....
" 20	Union.....	3540	Protais Isabelle Armagh.	3 "	10	Geo. Tanguay, Quebec.	.....	.....
" 20	Nestor.....	3541	" " ..	3 " ..	10	" " ..	.....	.....
" 9	Fertilizer.....	2748	J. P. Guay Montmagny.	3 " ..	10	.....	P. T. Lagare Quebec.	.....
" 9	Basic Slag.. ..	2749	" " ..	3 " ..	10	.....	" " ..	.....
" 9	Thomas Phosphate Flour.	2750	Arcadius Caron, Montmagny.	3 " ..	Nil.	Leeds Phosphate Works.	.....	.....
" 11	Phosphate... ..	2752	Joseph L'Abbe. Cap St. Ignace.	3 " ..	Nil.	Alex. Cross & Sons, Glasgow, Scot.	.....	.....
DISTRICT OF THREE RIVERS—								
March 4	MichiganCorbon Complete.	3927	Simon Forest, L'Epiphanie.	3 lbs.	15	.....	.....	.....
" 4	MichiganCorbon Virginia Tobacco.	3928	Adrien Taillon, L'Epiphanie.	3 "	15	.....	.....	.....
" 5	MichiganCorbon Complete	3929	Albert Dostales, Grand Cote.	3 "	15	.....	.....	.....
" 6	MichiganCorbon Virginia Tobacco.	3930	Omar Dostales, Berthier.	3 "	15	.....	.....	.....
" 8	N. W. Reliable.	3964	Hormisdas Henry, St. Lin.	3 "	15	.....	.....	.....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: including that of Nitric Acid or Ammonia if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid, per cent. Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		
Concluded.												
99	As guaranteed	....	.. ..	6·0	4 0	1·0	11·0	10 0	2·0	.....	3842	Meets guaranty.
	As found ...	...	.....	6·0	4·87	1·57	12·44	10·87	1 97	.....		
335	As guaranteed	0·82	1·0	4·0	2·0	1·0	7·0	6 0	6 0	....	3844	Nearly 3% low in potash.
	As found	0·80	1·0	3·32	5·14	1·22	9·68	8·46	3·15	.		
591	As guaranteed	.....	.....	.....	13·60	.....	....	.....	....	. ....	3529	Meets guarantee
	As found....	.....	... ..	.....	13·75	.....	.....	.....	.....	.....		
1228	As guaranteed	1·75	2·0	.....	8·0	.....	8·0	8·0	3·0	.....	3530	"
	As found.....	1·94	2·4	2·94	5·61	2·77	11·32	8·55	4·15	....		
929	As guaranteed	.....	2·0	....	.....	....	9·0	8·0	4 0	.....	3532	"
	As found.....	1·58	1·95	.....	....	2·67	9·94	7·27	4 23	.....		
253	As guaranteed	.....	.....	.....	.....	.....	16 0	.. ..	.....	. ...	3533	"
	As found.....	.....	.....	.....	..	.....	19·19	.....	.. ..	.....		
1228	As guaranteed	1·75	2·0	. .	8·0	.....	8 0	8·0	3 0	..	3534	"
	As found	1·94	2 4	.....	6·52	2·67	9·19	6·52	3 96	....		
1084	As guaranteed	1·65	2·0	5·0	...	1·0	6·0	5 0	....	.....	3537	"
	As found.....	1·55	1·94	3 8	4·53	0·42	8 75	8·33	... .	.....		
1074	As guaranteed	.....	.....	.....	15·75	1·25	17·0	.....	.....	80·00	3538	2·5% low in phosphoric acid.
	As found.....	.....	.....	.....	13·95	.....	14·31	.....	....	82·00		
1080	As guaranteed	0·85	1·0	6·0	2·0	1·0	9·0	8 0	1 0	...	3539	2% low in phosphoric acid, nearly meets value guarantee. Pass.
	As found. ...	1·00	1 24	2 04	4·46	0 5	7·0	6·5	1·22	.. .		
945	As guaranteed	2·49	3·0	4 0	2 0	1 0	7 0	6 0	3 5	....	3540	Meets guaranty.
	As found. ...	1·76	2 1		...	0 57	8 94	8 37	4 45	....		
1079	As guaranteed	2 47	3 0	8 0	2 0	1 0	11 0	10 0	.	....	3541	"
	As found ...	2·26	2 8	9·24	3·86	1 27	14 37	13·1	...	. .		
206	As guaranteed	1·65	2 0	6 0	2 0	1·0	9 0	8 0	4 0	. .	2748	"
	As found	1 77	2 2	4·94	4 99	1 45	11 38	9 93	4 54	....		
591	As guaranteed	..	..	.....	13·60	...	. .	...	...	...	2749	"
	As found ..	....	.....	.. ..	13 90	...	...	...	...	. .		
253	As guaranteed	....	.....	....	...	..	18·0	...	...	...	2750	"
	As found	... ..	...	...	...	.	18 12	...	....	....		
335	As guaranteed	0 82	1 0	4 0	2 0	1 0	7 0	6·0	6 0	.	2752	"
	As found	0 83	1·0	6·0	2 56	2 07	10 63	8 56	7 44			
Dr. V. P. LAVALLEE, INSPECTOR.												
1221	As guaranteed	1 65	2	4	4	1	9	8	3	...	3927	Meets guaranty
	As found	1 68	2 09	4 62	4 33	1 3	10 25	8 95	2 97	...		
1225	As guaranteed	2 06	2 5	4	4	1	9	8	3	.	3928	"
	As found	1 55	1 94	4 90	3 46	1 27	9 63	8 36	2 90			
206	As guaranteed	1 65	2	6	2	1	9	8	4	.	3929	"
	As found	1 87	2 3	4 62	4 57	1 27	10 43	9 19	3 94			
1222	As guaranteed	1 65	2	4	4	1	9	8	3	...	3930	"
	As found	1 81	2 25	4 46	3 84	1 20	9 50	8 30	4 15			
880	As guaranteed	0 82	1	3	1	1	5	4	6	...	3964	
	As found ...	0 86	1 07	0 7	4 21	1 22	6 13	4 91	7 34			

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
			DISTRICT OF THREE RIVERS—					
1915.								
Mar. 8	Victor.....	3965	Monahan Bros., St. Lin.	3 lbs.	15	....	.....	.....
" 9	Guano	3966	Ulric Beaudoin, St. Julienne.	3 "	15	F. C. Marquis, Quebec.	... .	.....
" 10	Montcalm..	3967	" ..	3 "	15	" .	....	....
" 11	Fertilizer Harab Davies.	3968	Gravel & Beadry, Joliette.	3 "	15	Ont. Fert. Co., West Toronto.	....	.. ..
" 11	Tobacco Special.	3969	" ..	3 "	15	" ..	. .. .	....
" 11	Fertilizer.....	3970	" ..	3 "	15	" ..	.....	.....
" 12	International Tobacco.	3971	Cyriac Roy, St. Thomas de Joliette.	3 "	20	Geo. Tanguay, Quebec.	.....	.....
" 12	Celtic Guano...	3972	" ..	3 "	20	" ..	....	.. ..
" 12	Union Guano...	3973	" ..	3 "	20	" ..	.....	.....
" 15	Fertilizer Joliette.	3975	I. E. Dupuis Ruisseau, St. George.	3 "	20	F. C. Marquis, Quebec.	.....	.....
" 16	Phosphate Quebec.	3979	D. Dupuis & Fils, Ruisseau St. George.	3 "	20	F. C. Marquis, Quebec.	....	....
" 17	Superphosphate.	3981	D. Levesque, Ruisseau Vacher.	3 "	20	Geo. Tanguay, Quebec.	.....	....
" 19	All Crop Fertilizer.	3984	D. Dupuis & Fils, Ruisseau St. George.	3 "	20	Amer. Agr. Chem. Co., New York.	....	.....
" 19	Champion Phosphate.	3985	" "	3 "	20	" "	.....	... .
" 19	Corn, Wheat and Rye.	3986	" "	3 "	20	" "	.....	.....
" 19	High Grade Farmer's Friend Superphosphate.	3987	" "	3 "	20	" "	....	.....
" 19	Vegetable and Vine.	3988	" "	3 "	20	" "	.. ..	.....
" 23	Sulphate of Potash.	3992	Hildaige St. George, Joliette.	3 "	25	Kali Syndicate, Berlin, Germany.	....	.. ..
" 23	Acid Phosphate	3993	" "	3 "	25	Nitrate Agencies, New York.	....	.....
" 23	Nitrate of Soda.	3994	" "	3 "	25	" "	.....	.....
April 1	Jupiter Guano..	3995	S. Vessot, Joliette	3 "	20	Geo. Tanguay Quebec.	.....	.. ..

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: including that of Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Phosphoric Acid per cent. Reverted or Citrate Soluble.	Phosphoric Acid per cent. Insoluble.	Phosphoric Acid per cent. Total.	Phosphoric Acid per cent. Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
		p. c.	p. c.	p. c.	d. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
Continued.												
83	As guaranteed	.. ..	2	.....	.....	... ..	7	.....	3	.....	3965	Meets guaranty.
	As found....	1 36	1 70	.....	.....	.....	9·88	.....	3·42			
912	As guaranteed	0·82	1	3 25	0·75	1	5	4	6	.. ...	3966	Nearly meets guaranty. Pass.
	As found.....	1·39	1·72	2·40	5·66	1·85	9·31	7·46	4·91			
914	As guaranteed	1·65	2	3·25	0·75	1	5	4	6	...	3967	"
	As found.....	1·56	1·94	2·44	6·25	2 5	11·19	8·69	4·58			
1269	As guaranteed	4 9	6	2	5	1	8	7	3	....	3968	Three per cent low in nitrogen. Claim a mistake in tagging.
	As found.....	1·98	2·	0·42	8·76	3·32	12·50	9 18	3·36			
1407	As guaranteed	1·60	2·	5	3	1	9	8	3	.....	3969	Meets guaranty
	As found	3·20	3·97	1·32	8·38	2·05	11·75	9·70	3 86			
1281	As guaranteed	.....	.....	14·	. .	1	15·0	14	.. ..	.....	3970	"
	As found. ..	.....	.....	2·48	14 99	2 22	19 69	17·47				
955	As guaranteed	1·65	2·	4	2	1	7	6	4	.. ..	3971	One per cent low in potash, value compensated. Pass.
	As found... .	2·44	3·0	3·42	8 08	1 0	12·5	11·5	2·89			
1075	As guaranteed	0 85	1·	6	2	1	9	8	2	.....	3972	Meets guaranty.
	As found. ...	1 08	1·3	4 42	3·68	1 20	9 30	8 10	1 31			
1078	As guaranteed	3·29	4	7	3	1	11	10	.. ..	.....	3973	
	As found	2 65	3·3	4·6	4 74	1 47	10 81	9·34				
1107	As guaranteed	2 47	3	6	1	1	8	7	10	...	3975	Three per cent low in potash, compensated value. Pass.
	As found....	2 27	2 8	4 41	8·39	2 80	15·63	12 83	7 18			
913	As guaranteed	1 65	2 0	6 75	1 25	1 0	9 0	8 0	3 0		3979	Meets guaranty.
	As found.....	1·87	2 3	1·70	6 81	3 65	12 19	8 54	3·63	...		
958	As guaranteed	....	....	16 0		1 0	17 0	16 0	...		3981	Meets guaranty.
	As found.. .	.		17 02		1 20	18 22	17 02	.			
1349	As guaranteed	0 82	1 0	5 0	4 0	1 0	10 0	9 0	3 0		3984	Meets guaranty.
	As found.....	0 84	1 0	7·0	2 57	1 12	10 69	9 57	3·01			
1345	As guaranteed	..		6 0	4 0	1 0	11 0	10 0	2 0		3985	Meets guaranty.
	As found..			9 46	0 31	1 42	11 19	9 77	2 49			
1350	As guaranteed	1 65	2 0	4 0	4 0	1 0	9 0	8 0	3 0		3986	Meets guaranty.
	As found..	1 68	2 1	6 14	3 08	0 72	9 94	9 22	3 01			
1353	As guaranteed	3 29	4 0	6 0	4 0	1 0	11 0	10 0	3 0		3987	Meets guaranty.
	As found..	2 88	3 60	7 66	3 40	0 87	11 93	11 06	2 51			
1352	As guaranteed	2 47	3 0	4 0	4 0	1 0	9 0	8 0	3 0		3988	Meets guaranty.
	As found..	2 58	3 2	6 56	3 15	0 76	10 38	9 71	2 46			
692	As guaranteed								47 0		3992	Meets guaranty
	As found..	..	.						48 5			
970	As guaranteed			16 0		1 0	17 0	16 0			3993	Meets guaranty
	As found..			17 62	0 94	1 57	20 13	18 56				
206	As guaranteed	15 0									3994	Meets guaranty.
	As found..	15 4	19 1									
1401	As guaranteed	3 70	4 0	6 0	3 0	1 0	10 0	9 0	3 0		3995	Nearly meets guarantee, pass.
	As found.	2 98		3 90	4 02	0 77	8 69	7 02	2 11			

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF THREE RIVERS—								
1915.								
April 6	Reliable.....	67903	Ludger Beauregard, Joliette.	3 lbs.	20	.....	E. Julien, Quebec.	.....
" 7	Thomas Phosphate.	67904	Napoleon Gaudet, St. Liguori.	3 "	20	.....	Nap. Rivest	.....
" 7	Farm and Garden Phosphate	67905	" "	3 "	20	Bowker's Fert. Co., Boston.	.....	.....
" 10	Special Golden Harvest.	67914	Odilon Lachapelle, St. Liguori.	3 "	20	" "	.....	.....
" 20	Virginia Tobacco.	67931	Alexis Malhiot, Montcalm.	3 "	20	Mich. Fert. Co., Buffalo.	.....	.....
" 26	Guano de Golfe	67941	Zotique Beaudoin, St. Alexis.	3 "	20	F. C. Marquis, Quebec.	.....	.....
DISTRICT OF MONTREAL—								
Apr. 13	Vegetable and Potato.	67101	Montreal Abbatoirs, Montreal.	3 jars.	Nil.	Vendor	.....	.....
" 13	Special Potato Manure.	67102	" " ..	3 "	"	"	.....	.....
" 13	Sure Grower....	67103	" " ..	3 "	"	"	.....	.....
" 13	Bone Meal.....	67104	" " ..	3 "	"	"	.....	.....
" 13	Vegetable Grower.	67105	" " .	3 "	"	"	.....	.....
" 13	Corn and Cereal Special.	67106	" " ..	3 "	"	"	.....	.....
" 16	Basic Slag, A Quality.	67108	The Wm. Ewing Co., Montreal.	3 "	"	The Cross Fert. Co.	.....	.....
" 16	Tobacco and Potato.	67109	" " ..	3 "	"	Gunns	.....	.....
" 16	Acid Phosphate.	67110	Dupuy & Ferguson, Montreal.	3 "	"	"	.....	No reg. No. or tags on bags.
" 16	General Crop...	67111	" " ..	3 "	"	"	.....	" ..
" 16	Potato Manure .	67112	" " ..	3 "	"	"	.....	" ..
" 20	Guano du Golfe.	67113	Hector L. Devy, Montreal.	3 "	"	F. C. Marquis, Quebec.	.....	.....
" 20	Superphosphate.	67114	" " ..	3 "	"	" ..	.....	.....
" 21	Acme..... ..	67115	Wm. Rennie Co., Ltd., Montreal.	3 "	"	Lesage Packing and Fert. Co.	.....	.....
Apr. 21	Crockers New General Crop.	67116	Le Pailleur & Frere, Lachine.	3 jars.	Nil.	Crocker's, Buffalo, N.Y.	.....	.....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total; including that of Nitric Acid or Ammonia if present	Nitrogen p.c. Total; Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Phosphoric Acid per cent. Reverted or Citrate Soluble.	Phosphoric Acid per cent. Insoluble.	Phosphoric Acid per cent. Total.	Phosphoric Acid per cent. Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.

Concluded.

		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		
1306	As guaranteed	0·82	1·0	3·0	3·0	1·0	7·0	6·0	3·0	....	67903	Meets guaranty.
	As found.....	0·74	0·98	3·42	3·48	1·60	8·50	6·90	3·55	...		
253	As guaranteed	....	.....	....	.....	....	18·0	.....	....	.....	67904	Meets guaranty.
	As found....	.....	.....	.....	.....	....	19·37	.....	.....	....		
410	As guaranteed	1·65	2·0	6·0	2·0	1·0	9·0	8·0	2·0	....	67905	Meets guaranty.
	As found.....	1·66	2·02	5·12	3·68	2·07	10·87	8·80	2·11	...		
1375	As guaranteed	....	....	8·0	4·0	1·0	13·0	12·0	2·0	....	67914	Meets guaranty.
	As found.. ...	.....	.....	9·20	4·58	2·15	15·93	13·78	2·55	...		
207	As guaranteed	2·06	2·50	6·0	2·0	1·0	9·0	8·0	3·0	....	67931	Meets guaranty.
	As found.. ...	1·87	2·30	7·52	1·69	1·17	10·38	9·21	3·69	.....		
912	As guaranteed	0·82	1·0	3·25	0·75	1·0	5·0	4·0	6·0		67941	Meets guaranty.
	As found.....	1.26	1·56	1·04	6·17	1·60	8·81	7·20	5·0	....		

D. J. KEARNEY, INSPECTOR.

1108	As guaranteed	0·82	1·0	....	8·0	2·0	10·0	8·0	3·0	....	67101	Meets guaranty.
	As found....	1·75	2·2	....	11·87	1·32	13·19	11·87	3·48	.....		
556	As guaranteed	....	1·0	....	....	....	....	8·0	5·0	....	67102	
	As found ..	1·73	2·2	....	.....	1·85	13·50	11·65	5·58	..		
551	As guaranteed	....	1·0	.....	....	....	....	8·0	1·0	..	67103	
	As found ..	2·33	2·9	....	....	1·27	14·0	12·73	1·49	..		
1044	As guaranteed	1·64	2·0	.....	10·0	10·0	20·0	10·0	...	..	67104	
	As found.....	2·97	3·8	.....	....	7·17	23·62	16·45	....	..		
553	As guaranteed	.....	4·0	....	....	....	....	6·0	8·0	....	67105	
	As found ..	2·94	3·7	....	.....	2·82	12·87	10·05	8·21	..		
552	As guaranteed	....	2·0	....	....	....	....	8·0	2·0	..	67106	
	As found. ..	2·70	3·3	....	....	1·07	13·25	12·18	2·07	..		
557	As guaranteed	....	....	....	12·80	....	....	....	....	....	67108	
	As found ..	....	....	....	13·05	....	....	....	....	....		
130	As guaranteed	....	4·0	....	....	....	....	7·0	3·0	..	67109	
	As found. ..	3·31	4·03	5·06	2·23	0·52	7·81	7·29	3·13	....		
....	As guaranteed	....	....	....	....	....	....	....	....	....	67110	Sold without registration number.
	As found	....	....	....	....	....	....	....	....	....		
..	As guaranteed	....	....	....	....	....	....	....	....	....	67111	
	As found ..	....	....	....	....	....	....	....	....	....		
.	As guaranteed	....	....	....	....	....	....	....	....	....	67112	
	As found ..	....	....	....	....	....	....	....	....	....		
912	As guaranteed	0·82	1·0	3·25	0·75	1·0	5·0	4·0	6·0	....	67113	Meets guaranty.
	As found ..	1·65	2·0	4·62	7·10	1·47	13·19	11·72	5·45	....		
911	As guaranteed	0·82	1·0	6·0	1·0	1·0	8·0	7·0	2·0	....	67114	
	As found	1·71	2·1	4·64	8·31	2·52	15·50	12·98	2·16	....		
1081	As guaranteed	1·65	2·0	5·0	....	1·0	6·0	5·0	....	....	67115	
	As found	1·52	1·89	5·14	3·09	0·16	9·18	8·23	....	....		
1298	As guaranteed	0·82	1·0	4·0	4·0	1·0	9·0	8·0	1·0	....	67116	
	As found ..	0·84	1·0	2·86	5·99	1·65	10·50	8·85	1·66	....		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).
				Quantity.	Cents.	Manufacturer.	Furnisher.	
			DISTRICT OF VALLEYFIELD—					
1915.								
Mar. 5	Legare Special Grain.	62860	Joseph Pigeon, Sweetsburgh.	3 jars.	Nil.	Capelton Chem. Fert. Co., Buckingham.	.....	.....
" 5	Dom. 2-9-2.....	62861	W. J. Lee, Sweetsburgh.	3 "	"	Dom. Fert. Co.	.....	.....
" 5	" 5-8-4.....	62862	" "	3 "	"	" ..	.....	.....
" 5	Potato Phosphate.	62863	C. M. Beattie, Sweetsburgh.	3 "	"	Bowker's Fert. Co.	.....	.....
" 9	Fertilizer.....	62864	F. H. McKeough, Hemmingford.	3 "	"	Read's Fert. Co.	.....	.....
" 9	"	62865	" "	3 "	"	" ..	.....	.....
" 9	Special C. & C..	62866	J. C. McKay, Hemmingford.	3 "	"	Montreal Abattoirs, Ltd.	.....	.....
" 9	Empres.....	62867	G. W. Keddy, Hemmingford.	3 "	"	Lowell Fert. Co.	.....	.....
" 9	Potato Manure .	62868	" "	3 "	"	" ..	.....	.....
" 10	Vegetable and Potato.	62869	J. E. Berthiaume, Bedford.	3 "	"	Montreal Abattoirs, Ltd.	.....	.....
" 15	Farm Garden...	62871	Norman Brooks, Franklin Centre.	3 "	"	Bowker's Fert. Co.	.....	No tags on bags at time of taking sample.
Mar. 15	Sure Crop	62872	Norman Brooks, Franklin Centre.	3 "	"	Bowker Fert. Co.	.....	No tags on bags at time of taking sample.
" 15	All Crop.....	62873	W. B. Coulter, Anderson Corners.	3 "	"	Read Fert. Co.	.....	.....
" 15	Special Corn, Wheat and Rye.	62874	"	3 "	"	"	.....	.....
" 15	Farmer's Reliable.	62875	"	3 "	"	"	.....	.....
" 15	Pioneer	62876	"	3 "	"	"	.....	.....
" 24	Monarch	62877	Capelton Chem. & Fert. Co., Buckingham.	3 "	"	Vendors.....	.....	.....
" 24	Special Corn....	62878	"	3 "	"	"	.....	.....
" 24	Complete XXX.	62879	"	3 "	"	"	.....	.....
" 24	Royal Canadian.	62880	"	3 "	"	"	.....	.....
" 24	Corn Special....	62881	"	3 "	"	"	.....	.....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

J. J. COSTIGAN, ACTING INSPECTOR.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: including that of Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
989	As guaranteed	1·75	2·0	6·0	2·6	.....	8·0	8·0	2·0	....	62860	Meets guaranty.
	As found....	1·29	1·6	4·54	4·82	3·27	12·63	9·36	1·93	.....		
1161	As guaranteed	1·6	2·0	7·0	2·0	1·0	10·0	9·0	2·0	.....	62861	"
	As found ...	1·73	2·15	3·94	5·93	1·43	11·40	9·97	2·20	....		
1167	As guaranteed	4·1	5·0	6·0	2·0	1·0	9·0	8·0	4·0	... ..	62862	"
	As found.....	4·08	5·07	5·50	3·30	0·47	9·30	8·83	3·56	.. ..		
1092	As guaranteed	1·65	2·0	4·0	4·0	1·0	9·0	8·0	2·0	....	62863	"
	As found.. ..	1·80	2·24	4·00	5·15	1·40	10·55	9·15	2·47	....		
1368	As guaranteed	0·82	1·0	5·0	4·0	1·0	10·0	9·0	3·0	.....	62864	"
	As found. ...	0·98	1·22	4·04	5·31	1·65	11·00	9·35	3·16	.....		
1366	As guaranteed	.....	.....	8·0	4·0	1·0	13·0	12·0	2·0	....	62865	"
	As found	.....	...	7·30	4·70	1·60	13·60	12·00	1·89	.....		
552	As guaranteed	.....	2·0	.....	...	.....	..	8·0	2·0	.....	62866	"
	As found.....	3·0	3·8	.....	....	2·35	13·06	10·71	2·47	.		
802	As guaranteed	1·24	1·50	4·0	3·0	1·0	8·0	7·0	2·0	....	62867	"
	As found ...	1·54	1·9	5·12	2·32	0·50	7·94	7·44	2·43	.		
804	As guaranteed	1·64	2·0	3·0	1·0	1·0	8·0	7·0	4·0	..	62868	"
	As found	2·03	2·49	5·10	2·43	0·72	8·25	7·53	3·77	....		
1108	As guaranteed	0·82	1·0	.. .	8·0	2·0	10·0	8·0	3·0	.	62869	"
	As found	1·92	2·37	....	....	2·3	13·5	11·20	2·55	....		
...	....		....	.....	..	..	..	..	..	. .	62871	Sold without tag on bag.
	... .			...	..	..	..	..	..	.....		
	As guaranteed	..	..	..	..	..	..	..	..	....	62872	Sold without registration number.
	As found	..	..	..	..	..	..	..	..	....		
1349	As guaranteed	0·82	1·0	5·0	1·0	1·0	10·0	9·0	3·0	....	62873	Meets guaranty
	As found	0·92	1·14	7·90	2·60	0·56	11·06	10·50	2·87			
1350	As guaranteed	1·65	2·0	4·0	4·0	1·0	9·0	8·0	3·0		62874	"
	As found	1·71	2·1	4·30	4·87	1·43	10·60	9·17	2·78			
1346	As guaranteed			8·0	4·0	1·0	13·0	12·0	2·0		62875	"
	As found			9·20	2·78	1·02	13·00	11·98	2·02			
1348	As guaranteed	0·82	1·0	4·0	4·0	1·0	9·0	8·0	2·0		62876	"
	As found	0·98	1·2	5·82	3·69	1·62	11·13	9·51	1·85			
857	As guaranteed		4·0				8·0		8·0		62877	"
	As found	3·40	4·2				9·81		7·72			
933	As guaranteed		1·0				8·0	8·0	2·0		62878	"
	As found	1·04	1·30		8·80	3·50	12·30	8·80	2·23			
1228	As guaranteed	1·75	2·0		8·0		8·0	8·0	3·0		62879	"
	As found	1·56	1·94		10·18	2·67	12·80	10·18	3·11			
81	As guaranteed		4·0				9·0		5·0		62880	"
	As found	3·59	4·46				11·93		5·64			
82	As guaranteed		1·0				7·0		3·0		62881	"
	As found	1·24	1·54				11·13		3·44			

BULLETIN No. 317—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the vendor.		Inspector's Report (Is not an expression of opinion).
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF VALLEYFIELD—								
1915.								
Mar. 24	No. 1.....	62882	Capelton Chem. & Fert. Co., Buckingham.	3 jars.	Nil	Vendors.. ..	....	.....
" 24	Victor	62883	"	3 "	"	"	....	....
" 24	Potato Special..	62884	"	3 "	"	"	.....	.....
" 15	Farm Garden...	58259	Besner & Chasle, Valleyfield.	3 "	"	Bowker Fert. Co.	.. ..	No tags on bags at time of taking sample.
" 15	Sure Crop	58260	"	3 "	"	"	....	.....
Apr. 28	12-2	62885	R. W. Blair, Hemmingford.	3 "	"	Buffalo Fert. Co.	.....	.. ..
" 28	Farm and Garden	62886	J. McCanse, Hemmingford.	3 "	"	Bowker Fert. Co.	.....	.. ..
May 4	Cuckers Crop Grower.	62887	T. S. McFarlane, Athelstane.	3 "	"	F. S. Royster Guano Co.	.....	.....
" 4	Fish, Flesh and Fowl.	62888	"	3 "	"	"	... .	... .
" 4	Acid Phosphate.	62889	"	3 "	"	"	.....	.....
" 4	Grain Special...	62890	Thos. Coyland, Athelstane.	3 "	"	Inter. Chem. Corporation.	....	.....
" 4	Vegetable and Potato.	62891	"	3 "	"	"	....	... .
" 4	Ideal Wheat and Corn.	62892	"	3 "	"	"	....	.....
" 4	1-8-2.....	62893	"	3 "	"	"	.....	.....
" 4	Farmers' Choice.	62894	"	3 "	"	"	.....	... .
DISTRICT OF OTTAWA—								
Mar. 9	Farmer's Choice	63396	H. Brown & Son, Brockville.	3 lb.	Nil.	Inter. Agr. Corp. Buffalo Fertilizer Wks. Buffalo	....	The figures 1146, were on bags on opposite side from claim and name of Brand. Did not say Reg. No.

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: including that Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analysis.
		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p. c.		
81	As guaranteed	.....	.....	.....	.....	.....	10·0	...	....	. ...	62882	Meets guaranty
	As found.....	....	.....	.....	.....	.....	15 19	....	... .	.		
83	As guaranteed	.....	2·0	.....	...	.....	7·0	....	3·0	.....	62883	"
	As found.....	1 90	2·36	....	....	.....	12·06	.....	3·07	.....		
336	As guaranteed	.....	2·0	6·0	.....	.....	.. .	....	8·0	...	62884	"
	As found. ..	1·55	1·93	1·28	8 80	1·48	11·36	10·08	7·68	....		
....	As guaranteed	... .	.....	.....	.....	.....	.....	....	....	...	58259	Sold without registration number.
	As found.....	.....	.....	.....	.....	.....	....	....	.....	.....		
...	As guaranteed	.....	.....	.....	...	.. .	....	....	...	. .	58260	"
	As found....	.....	...	...	.....	. .	.....	.....	.....	. . .		
1148	As guaranteed	.... .	.. .	9·0	3·0	1 0	13·0	12·0	2 0	....	62885	Meets guaranty
	As found. ...	.....	.....	8·30	3·94	2·57	14·81	12 24	2 43	... .		
1378	As guaranteed	0·82	1·0	5·6	4·0	1·0	10 0	9·0	2·0	.....	62886	"
	As found.....	1 57	1·94	6·10	5 22	1·55	12·87	11·32	2·12	.....		
1411	As guaranteed	0·82	1·0	6 0	2 0	0·50	8·50	8 0	1·0	.....	62887	"
	As found. ...	5·77	0·96	2 96	5·52	1·27	9·75	8·42	1 04	. . .		
1412	As guaranteed	1·65	2·0	6·0	2 0	0·50	8·50	8·0	3 0	....	62888	"
	As found	1 62	2 0	4·88	5·0	1 50	11·38	9·8	3 57	....		
1413	As guaranteed	.....	....	14·0	2·0	0 50	16·50	16·0	. ..	...	62889	"
	As found	.. .	.....	9·32	8·15	1 85	19 32	17 47	.	. . .		
1144	As guaranteed	2 1	2 5	6·0	2·0	1·0	9·0	8 0	1·5	...	62890	"
	As found.	1 94	2·4	6·00	3 67	1·95	11·62	9 67	1 49	.. .		
1143	As guaranteed	2 5	3·0	6 0	2 0	1 0	9 0	8 0	3 0	...	62891	"
	As found. .	2 06	2 5	5 84	3 97	2·00	11·81	9 81	3·19	...		
1145	As guaranteed	1 6	2 0	7 0	2 0	1·0	10 0	9·0	2 0	.	62892	"
	As found.....	1·51	1 9	6 36	3 87	2·40	12 63	10 23	2·11	...		
1147	As guaranteed	0 80	1 0	6 0	2 0	1 0	9 0	8 0	2 0	...	62893	
	As found. ..	1·02	1·24	5 00	3 61	2·45	11 06	8 61	1 85	...		
1146	As guaranteed	0 80	1 0	7·0	3 0	1 0	11·0	10 0	2·0	. .	62894	"
	As found....	0 90	1·1	7 38	4 25	1 00	12 63	11 63	1 78	...		

Concluded.

J. A. RICKEY, INSPECTOR.

...	As guaranteed	0 82	1 0	7 0	3 0	1 0	11 0	10 0	2 0	...	63886	Meets guarantee
	As found....	0 86	1 0	6 10	3 17	2 42	11 69	9 27	1 84	...		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).
				Quantity.	Cents.	Manufacturer.	Furnisher.	
			DISTRICT OF OTTAWA—					
1915.								
Mar. 9	Vegetable and Potato.	63397	H. Brown & Son, Brockville, Ont.	3 lbs.	Nil.	Inter. Agr. Corp., Buffalo Fert. Wks., Buffalo.	.....	The figures 1143, the same as previous sample.
" 9	Grain Special...	63398	" " ..	3 "	"	"	.....	The figures 1144, same as sample 63396.
" 9	Ideal Wheat and Corn.	63399	" " ..	3 "	"	"	.....	No. 1145 was not on bags. Got it from invoice.
" 11	Special High Grade Farmers Friend Superphosphate.	63497	W. F. Macpherson, Prescott.	3 "	"	American Agr. Chem. Co., New York.	Shippedfrom Cartaret.	.....
" 11	Farmer's Friend Superphosphate.	63498	" " ..	3 "	"	"	"	.....
" 9	Read's Special Corn, Wheat and Rye.	63584	The H. T. Murray Co., Brockville.	3 "	"	"	"	.....
" 9	Read's All Crop.	63585	" " ..	3 "	"	"	"	....
" 9	Reads Pioneer Special.	63586	" " ..	3 "	"	"	"	....
" 11	Sugar Beet, Corn and General Field Crop	63587	N. Willard, Prescott.	3 "	"	Gunn's Ltd., W. Toronto.	....	..... .
" 11	Tobacco and Potato.	63588	" " ..	3 "	"	"	....	....
" 13	Basic Slag A. Quality.	63589	W. G. Wood, Smith's Falls.	3 "	"	The Cross Fert. Co., Sydney.	....	....
" 23	Bradley's Circle Phosphate.	63590	Perth Roller Mills, Perth, Ont	3 "	"	American Agr. Chem. Co., New York.	Shippedfrom Cartaret.	.....
" 23	Bradley's New Method.	63591	" " ..	3 "	"	"	"	.....
" 23	Bradley's Unicorn.	63592	" " ..	3 "	"	"	"	.....
" 25	Read's Vegetable and Vine.	63593	Baker & Snyder, Morrisburg.	3 "	"	Am. Agr. Chem Co., N. York	Shipped from Cartaret.	.....
" 25	Read's Standard Superphosphate	63594	" ..	3 "	"	" ..	"	....
" 25	Read's Farmer's Reliable.	63595	" ..	3 "	"	" ..	"	.....
" 26	Freeman's Bone and Potash.	63598	K. McDonald & Sons, Ottawa,	3 "	"	W. A. Freeman, Ltd., Hamilton.	.....	.....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: including that of Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Phosphoric Acid per cent. Reverted or Citrate Soluble.	Phosphoric Acid per cent. Insoluble.	Phosphoric Acid per cent. Total.	Phosphoric Acid per cent. Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinions of the Chief Analyst.
Continued.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
....	As guaranteed	2·4	3·0	6·0	2·0	1 0	9·0	8·0	3·0		63397	Meets guaranty
	As found.....	2·24	2·78	4·50	3·51	1·80	9·81	8 01	3 38			
...	As guaranteed	2·0	2·5	6·0	2·0	1 0	9·0	8·0	1 5		63398	"
	As found.....	1·92	2 38	5·18	4 19	1 82	11 19	9 37	1 6	...		
....	As guaranteed	1·6	2 0	7·0	2·0	1 0	10 0	9·0	2·0	...	63399	"
	As found.....	1·84	2 29	4·87	3·77	2 62	11·26	8·64	2 07	...		
1353	As guaranteed	3·29	4·0	6 0	4 0	1 0	11 0	10·0	3 0	...	63397	"
	As found.....	3·25	4 04	6·74	4 99	0 90	12 63	11 73	2 96	...		
1351	As guaranteed	2·06	2·5	4 0	4 0	1 0	9 0	8·0	3 0		63398	"
	As found	2·16	2 68	4 82	4·58	1 10	10 50	9 40	3 40			
1350	As guaranteed	1 65	2·0	4 0	4 0	1 0	9 0	8 0	3 0		63384	"
	As found.....	1 80	2 29	4 0	5 30	1 40	10 70	9 30	3 03			
1345	As guaranteed	0 82	1 0	5 0	4 0	1 0	10 0	9 0	3 0		63387	"
	As found	1·04	1 3	5 30	4 31	1 52	11 13	9 61	3 13			
1348	As guaranteed	0 82	1 0	4 0	4 0	1 0	9 0	8 0	3 0		63386	"
	As found	1 12	1·39	5 20	3 07	1 82	10 09	8 27	2 07			
1221	As guaranteed		2 0				9 0		3 0		63387	"
	As found.....	1 71	2 1				9 62		3 64			
1230	As guaranteed		4 0				7 0		3 0		63388	Nearly meets guaranty. Fine
	As found	3 0	3 73				7 56		1 97			
557	As guaranteed				12 80		12 80	12 80		80 00	63382	Meets guarantee
	As found				14 90		17 69	14 90		83 06		
725	As guaranteed			8 0	2 0	1 0	11 0	10 0	8 0		63389	"
	As found			8 40	3 18	0 80	12 38	11 58	9 10			
187	As guaranteed	0 82	1 0	6 0	2 0	1 0	9 0	8 0	2 0		63391	"
	As found	1 00	1 21	5 50	3 25	1 30	10 1	8 81	2 31			
732	As guaranteed	1 6	2 0	6 0	2 0	1 0	9 0	8 0	2 0		63395	"
	As found	1 73	2 15	6 20	3 60	1 40	11 20	9 80	2 2			
1342	As guaranteed	2 45	3	4	4	1	9	8	3		63393	"
	As found	2 49	3 1	3 52	5 01	1 60	10 15	8 55	2 86			
383	As guaranteed	0 82	1	6	2	1	9	8	4		63394	"
	As found	0 88	1 2	5 32	5 31	1 50	11 93	10 43	1 28			
737	As guaranteed			10	2	1	13	12	5		63396	"
	As found			9 36	4 06	1 80	11 62	15 42	1 37			
147	As guaranteed		2					9	6		63392	"
	As found	3 47	4 3					9 08	8 78			

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF OTTAWA—								
1915.								
Mar. 26	Potash Special..	63599	K. McDonald & Sons, Ottawa.	3 lbs.	Nil.	CapeltonChem Fert. Co., Buckingham	.....	.....
" 26	Lawn....	63600	" ..	3 "	"	" ..	....	.....
April 22	Standard. ..	63696	Standard Fert. & Chem.Co.,Smith's Falls.	3 "	"	Vendors... .	..... .	....
" 22	Corn and Grass.	63697	" ..	3 "	"	"	.....	.....
" 22	Phosphate Plaster.	63698	" ..	3 "	"	"	....	.....
" 22	Watchem Grow.	63699	" ..	3 "	"	"	.....	.....
DISTRICT OF KINGSTON—								
April 19	Scottish Potato Manure.	57379	Hoffman & Bunnett, Belleville.	3 lbs.	10	TheCross Fert. Co., Sydney.	.....	.....
" 20	Bradley's Unicorn.	57386	John Gunyo. Brighton.	3 "	10	Amer. Agr. Chem. Co., Buffalo.	.....	.....
" 20	Bradley's Vegetable.	57387	" " ..	3 "	10	" ..	....	....
" 20	Bradley's New Method.	57388	" " ..	3 "	10	" ..	.....	.....
" 20	Bradley's Half Century.	57389	" " ..	3 "	10	" ..	.....	.....
" 20	Bradley's Patent Superphosphate.	57390	" " ..	3 "	10	" ..	.....	.....
" 20	Bradley's Special B. D. Guano.	57391	" " ..	3 "	10	Vendors	....	.....
DISTRICT OF TORONTO—								
Mar. 17	Harab Davis 5-9-2.	66877	Ont. Fert. Co., Ltd., West Toronto.	3 lbs.	15	"	... .	.....
" 17	Harab Davis 6-7-3.	66878	" " ..	3 "	15	"	... .	.....
" 17	Harab Davis Special 10-2.	66879	" " ..	3 "	15	"	.....	.....
" 17	Harab Davis 4-6-3.	66880	" " ..	3 "	15	"	.....	....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total; including that of Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total; Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Phosphoric Acid per cent. Reverted or Citrate Soluble.	Phosphoric Acid per cent. Insoluble.	Phosphoric Acid per cent. Total.	Phosphoric Acid per cent. Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
336	As guaranteed	... ..	2	6	.....	.....	.....	.....	8	.. ..	63599	Two per cent low in potash, compensated. Pass.
	As found. ...	2·37	2·90	.....	.....	....	9·15	... .	5 90			
336	As guaranteed	.....	2	6	.. ..	.....	...	.....	8	. .	63600	Meets guaranty
	As found.	1·64	2·04	.....	.....	.....	11·75	.....	7 88			
280	As guaranteed	2	2·4	8	1·5	5	14	9	12	....	63696	"
	As found	1·86	2·3	4·44	6 49	5 20	16·13	10·93	2 57			
1041	As guaranteed	1·65	2	6	1	4	11	7	4		63697	"
	As found....	1·39	1 72	8·52	1·89	3·90	14·31	10 41	4 02			
283	As guaranteed	.....	.....	.....	.....	5	5	. .	...	.. .	63698	"
	As found.....	.....	... .	.....	.....	7 52	10·19	2·67	...			
282	As guaranteed	...	4	.....	.....	.. .	...	9	8	. .	63699	Two per cent low in potash compensated. Pass.
	As found ...	3 78	4 7	....	. .	0·90	12·31	11 41	6 09			
JAMES HOGAN, INSPECTOR.												
515	As guaranteed	2 47	3 0	7·0	1·0	1 0	9 0	8 0	3 5	...	57379	Meets guaranty.
	As found....	2·71	3·40	1 04	9 85	2 17	12 06	10 89	3 79			
1292	As guaranteed	1 65	2 0	4 0	4 0	1 0	9·0	8 0	2 0		57386	"
	As found....	1 50	1 89	4 32	4 48	1 45	10 25	8 80	2 05			
1295	As guaranteed	3 29	4 0	6 0	4 0	1 0	11 0	10 0	3 0		57387	"
	As found ...	3 62	4 47	6·28	4 06	2 10	12 44	10 34	2 84			
1290	As guaranteed	0 82	1 0	4 0	4·0	1 0	9 0	8 0	2 0		57388	"
	As found. ..	0 87	1 07	3 06	5 67	1 65	10 38	8 73	1 93			
1294	As guaranteed	2 06	2 5	4 0	4 0	1 0	9 0	8 0	3 0		57389	"
	As found ..	1 93	2 38	4 26	4 56	1 37	10 19	8 82	2 96			
1293	As guaranteed	2 06	2 5	4 0	4 0	1 0	9 0	8 0	1 5		57390	"
	As found	1 93	2 38	2 18	5 89	1 37	9 44	8 07	1 58			
1291	As guaranteed	0 82	1 0	4 0	4 0	1 0	9 0	8 0	3 0		57391	"
	As found	0 86	1 07	2 92	5 79	0 85	9 56	8 71	3 09			
H. J. DAGER, INSPECTOR.												
1268	As guaranteed	4 1	5 0	8 0	6 0	1 0	10 0	9 0	2 0		63677	Meets guaranty
	As found	3 89	4 83	3 64	7 35	1 57	12 56	10 99	2 12			
1269	As guaranteed	4 0	6 0	2 0	5 0	1 0	8 0	7 0	3 0		63678	"
	As found	4 06	6 0	0 96	7 14	2 16	10 26	8 10	3 21			
1267	As guaranteed	...		7 0	3 0	1 0	11 0	10 0	2 0		63679	"
	As found	...		1 00	10 27	1 17	12 44	11 27	1 91			
1266	As guaranteed	3 3	4 0	3 5	2 5	1 0	7 0	6 0	3 0		63680	"
	As found	3 43	4 17	0 66	5 83	2 25	8 44	6 19	3 01			

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF TORONTO—
1915.								
Mar. 17	Harab Davis 2½-9-2.	66881	Ont. Fert. Co., Ltd., West Toronto.	3 lbs.	15	Vendors		
" 17	Harab Davis 1-12-1.	66882	" "	3 "	15	"		
" 17	Harab Davis 2-8-1½.	66883	" "	3 "	15	"		
" 17	Harab Davies, 4-8-1½.	66884	" "	3 "	15	"		
" 17	Harab Davies, 3-8-1½.	66885	" "	3 "	15	"		
" 17	Harab Davies, 4-12-3.	66886	" "	3 "	15	"		
" 17	Harab Davies, 2-19-2.	66887	" "	3 "	15	"		
" 17	Harab Davies, 3-9-3.	66888	" "	3 "	15	"		
April 6	Harab Davies, Blood & Bone.	66889	" "	3 "	15	"		
" 6	Harab Davies, Special, 12-2.	66890	" "	3 "	15	"		
" 6	Harab Davies, 2½-7-2.	66891	" "	3 "	15	"		
Mar. 6	Harab Davies, Blood, Bone and Potash.	66892	" "	3 "	15	"		
" 6	Harab Davies, Pure Ground Blood.	66893	" "	3 "	15	"		
" 6	Harab Davies, Acid Phosphate.	66894	" "	3 "	15	"		
" 6	Harab Davies, 1½-10-1.	66895	" "	3 "	15	"		
" 6	Harab Davies, Nitrate of Soda	66896	" "	3 "	15	"		
" 6	Shur Crop Wheat Special, 2-9-2.	66897	Gunn's Ltd, West Toronto.	3 "	15	"		
" 6	Gunn's Special.	66898	" "	3 "	15	"		
" 6	Sugar Beet, Corn and General Field Crop.	66899	" "	3 "	15	"		
" 6	Wheat Special, 2-9-2.	66900	" "	3 "	15	"		
Arril.	Harab Davies Pure Bone Meal.	66903	Ont. Fert, Co., Ltd., West Toronto.	3 "	15	"		
" 7	Harab Davies Fine Steamed Bone Flour.	66901	" "	3 "	15	"		
" 8	Niagara Special	66905	Gunn's Ltd., West Toronto.	3 "	15	"		

SESSIONAL PAPER No. 14

FERTILIZIERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total, including that of Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total, calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
1262	As guaranteed	2·0	2·5	6·0	3·0	1·0	10 0	9·0	2·0	.....	66881	Meets guaranty.
	As found.....	2·21	2 71	0·74	7·85	3·60	12·19	8·59	2·28	.....		
1257	As guaranteed	0·80	1·0	5·0	7·0	1·0	13·0	12·0	1·0	.....	66882	
	As found. ...	1·31	1·63	3·80	10·48	2·35	16·63	14 28	1·56	.....		
1259	As guaranteed	1·6	2 0	5 0	3·0	1·0	9·0	8·0	1·0	.....	66883	"
	As found.....	1·84	2·29	1·30	9·27	2·55	13·12	10·57	1·45	.....		
1265	As guaranteed	3·3	1	5	3	1	9	8	1 5	....	66884	"
	As found.....	3·22	3·91	1·52	8·47	2 57	12 56	9 99	1 39	.....		
1263	As guaranteed	2·4	3	5	3	1	9	8	1·5	..	66885	"
	As found.....	2 35	2·92	1·16	9·82	2·90	13·88	10·98	1·20	....		
1267	As guaranteed	3·3	4	7	5	1	13	12	3	...	66886	"
	As found.. ...	3·05	3·8	4 42	8 23	1 72	14·37	12·65	3·10	.....		
1261	As guaranteed	1·6	2	6	4	1	11	10	2	...	66887	"
	As found.....	1·82	2·25	0·36	10·00	5 57	15·93	10 36	1 95	...		
1264	As guaranteed	2 4	3	5	4	1	10	9	3	....	66888	"
	As found.....	2·45	3·0	1·22	7 11	4 42	12 75	8 33	3 40	...		
1270	As guaranteed	7	8·5	.....	10	1	11	10	...	....	66889	"
	As found.....	7·36	8·93	0·32	11·08	4 60	16 00	11·40	...	.....		
1256	As guaranteed	....	....	9	3	1	13	12	2	....	66890	"
	As found.....	.....	.....	1·58	10·29	1 92	13 69	11 77	1·58	.....		
1260	As guaranteed	2	2·5	4	3	1	8	7	2	...	66891	"
	As found....	1 96	2·38	1 12	7 93	2·95	11 00	9 05	2 03	...		
1271	As guaranteed	6 6	8		6	2	8	6	3	...	66892	"
	As found.....	6 04	7·33	...	....	3 67	11 06	7·39	3 24	...		
1276	As guaranteed	11·5	14	.....	...	.....	.	....	.....	...	66893	1·5 low in nitrogen.
	As found....	10·00	12·14	.. ..	..	....	.. .	----	-	...		
1280	As guaranteed	.....	.....	16	.	1	17	16	....	.....	66894	Meets guaranty.
	As found	.....	.. ..	18 00	0 25	1·00	19 25	18 25		...		
1258	As guaranteed	1 2	1 5	. ...	10	3	13	10	1	..	66895	"
	As found ...	2 11	2 6	0 26	8 43	7 37	16 06	8 69	2 43			
1282	As guaranteed	15	18·3	.	....	...	.	-	-	.	66896	"
	As found ...	15 4	19 1									
1023	As guaranteed	1 65	2	7	2	1	10	9	2		66897	"
	As found ...	1 70	2 1	7 68	1·95	1 00	10 63	9 63	2 49			
1230	As guaranteed	2 46	3	0 5	6 5	2	9	7	2		66898	"
	As found.	2 52	3 1	3 72	3 47	0 75	7 94	7 19	2 49			
1234	As guaranteed	1 65	2	0 5	8 5	2	11	9	3		66899	"
	As found ...	1 74	2 2	6 68	2 69	0 92	10 19	9 27	2 82			
1235	As guaranteed	1 65	2	0 5	8 5	2	11	9	1		66900	"
	As found	1 74	2 2	5 0	2 97	0 97	8 94	7 97	1 58			
1278	As guaranteed	3 3	4		15	8	23	15			66901	"
	As found..	2 95	3 6		18 61	6 90	25 51	18 61				
1279	As guaranteed	2 8	3 5		16	8	24				66901	"
	As found	2 87	3 55	..	19 31	6 62	25 93					
1232	As guaranteed	2 46	3	0 5	8 5	2	11	9	3		66902	"
	As found	2 81	3 45	5 66	3 33	1 27	10 25	8 98	3 38			

Continued.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)
						DISTRICT OF TORONTO—		
1915.								
April 8	Black Loam Special.	66906	Gunn's Ltd., West Toronto.	3 lbs.	15	Vendors		
" 8	Tobacco and Potato.	66907	" "	3 "	15	"		
" 8	Blood and Bone Compound.	66908	" "	3 "	15	"		
" 8	Bowling Green & Greenhouse.	66909	" "	3 "	15	"		
" 8	Acid Phosphate.	66910	" "	3 "	15	"		
8	Swift's 14%.	66911	Swift's Canadian Co., Ltd., West Toronto.	3 "	15	"		
8	Dry Blood	66912	" "	3 "	15	"		
8	Swift's 2-10-2	66913	" "	3 "	15	"		
" 8	" 2-8-2	66914	" "	3 "	15	"		
" 8	" 1-9-2	66915	" "	3 "	15	"		
" 8	Pure Bone Meal.	66916	Swift Can. Co., West Toronto.	3 "	15	"		
" 8	Swift's 3 8-3	66917	" "	3 "	15	"		
" 8	Swift's 2-9-3	66918	" "	3 "	15	"		
" 8	Harab Davies, Ground Animal Tankage.	66919	Ont. Fert. Co. Ltd. West Toronto.	3 "	15	"		
" 23	Steamed Bone	66943	Gunn's Ltd., West Toronto.	3 "	15	"		
" 23	Special Manure.	66944	" "	3 "	15	"		
" 23	4-8-3	66945	Swifts Can. Co., West Toronto.	3 "	15	"		
" 23	Nitrate of Soda.	66946	" "	3 "	15			Imported by Vendors.
" 23	Ground Tankage	66947	" "	3 "	15	Vendor		
						DISTRICT OF HAMILTON—		
Mar. 16	Vegetable and Potato Manure	66870	W. A. Freeman Co. Ltd., Hamilton.	4 lbs.	15	Vendors		
" 16	Grass, Grain and Fruit Manure.	66871	" "	4 "	15	"		
" 16	Celery and early Vegetable Manure.	66872	" "	4 "	15	"		

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: Including that of Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
1237	As guaranteed	.....	.....	0 5	9·5	0·61	10·61	10	2	... .	66906	Meets guaranty
	As found.....	.. .	.....	3·48	7·49	0·72	11·69	10·97	2·03	. ..		
1230	As guaranteed	3·3	4	0·5	6 5	2	9	7	3	....	66907	"
	As found. . .	3·01	3·8	5·24	3·44	0·57	9·25	8·68	3·44	.....		
1236	As guaranteed	4·95	6	0·5	6·5	2	9	7	2	....	66908	"
	As found.....	4 80	6 0	1·46	9·34	0·70	11·50	10 80	2 22	.....		
1233	As guaranteed	3·3	4	0·5	5·5	2	8	6	3	....	66909	"
	As found. ...	2·68	3·35	3·60	5·77	0·82	10·19	9 37	3·82	.....		
1037	As guaranteed	.....	.....	14	2	0·8	16·8	16	.....	....	66910	"
	As found.....	.....	.....	13·60	3·04	1·55	18·19	16·64	....	....		
1423	As guaranteed	.	.....	13·14	0 86	0 22	14·22	14	....	....	66911	"
	As found.....	..	... ..	9 90	3·14	2 02	15·06	13 04	.....			
1429	As guaranteed	13 17	16	.....	.....	... .	.....	....	.....	.....	66912	"
	As found.....	13·4	16·6	...	.. ..	.....	....	. .	....	. .		
1420	As guaranteed	1·65	2	8·46	1·54	1	11	10	2	.....	66913	"
	As found.....	1·99	2 5	5·96	4·02	1·40	11 38	9 98	2·26	....		
1418	As guaranteed	1·65	2	4·92	3·08	0·94	8 94	8	2	.....	66914	"
	As found.....	1·98	2·5	4 47	4·74	0 92	10 13	9 21	2 16	.....		
1417	As guaranteed	0 82	1	7·20	1 80	0·42	9·42	9	2	..	66915	"
	As found.....	1·56	1·91	5 98	4·00	0·95	10 93	9·98	2·05	.. .		
1431	As guaranteed	2·47	3·0	6 35	3 65	14·0	24·0	10 0	...	.....	66916	"
	As found..	3 88	4·83	2·44	13·55	9 20	25 19	15 99	..	....		
1421	As guaranteed	2·47	3 0	4·54	3·16	0 97	8·97	8 0	3 0	....	66917	"
	As found.....	1·89	2·0	5·66	3·72	0·75	10 13	9·38	3 15	....		
1419	As guaranteed	1 65	2 0	7·20	1 80	0·42	9 42	9 0	3 0	...	66918	"
	As found. ..	1 62	2 0	5 48	3 71	1 62	10 81	9 19	2 86	..		
1277	As guaranteed	7 4	9 0	..	8 0	4 0	12·0	8 0	.	..	66919	"
	As found....	7 0	8·7	....	10 17	1 52	11 69	10 17	..	...		
1038	As guaranteed	2 46	3 0	0 4	12 6	9 0	22 0	13 0	.	..	66943	"
	As found. ...	3 0	3 8	0 52	15 81	6 92	23 25	16 33	.....	.....		
1239	As guaranteed	1 65	2 0	0 5	9 5	2 0	12 0	10 0			66944	"
	As found	1 58	1 9	5 76	5 72	1 02	11 50	10 48				
1422	As guaranteed	3 29	4 0	4 92	3 08	0 94	8·94	8 0	3·0	..	66945	"
	As found ...	3 16	4 3	4 40	4 20	1 47	10 07	8 60	3 24	.....		
1426	As guaranteed	15 0	18 0	..	.		.	.			66946	"
	As found	15 5	19 1									
1428	As guaranteed	5 76	7 0	2 65	2 21	6 14	11 0	4 86	...	.....	66947	"
	As found	7 30	8 9	0 28	11 19	1 40	12 87	11 47				

H. J. DAGER, ACTING INSPECTOR.

1250	As guaranteed	3 0	4 0	6 0	3 0	0 50	9 75	9 0	3 0	.....	66870	Meets guaranty
	As found . .	3 36	4 17	3 54	7 68	1 90	13 12	11 22	2 28	.....		
1253	As guaranteed	1 50	2 0	5 0	3 0	0 25	8 50	8 0	2 0	.....	66871	"
	As found	2 06	2 56	3 42	6 64	1 50	11 56	10 06	2 50	.....		
1254	As guaranteed	3 75	5 0	6 0	3 0	0 50	9 75	9 0	2 50	.....	66872	"
	As found	4 52	5 61	3 88	6 91	1 40	12 19	10 79	2 15	.....		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
			DISTRICT OF HAMILTON—					
1915.								
Mar. 16	Sure Growth...	66873	W. A. Freeman Co. Ltd., Hamilton.	4 lbs.	15	Vendors	....	.....
" 16	Bone Meal.....	66874	" " ..	4 "	15	"	.....	.. ..
Apr 13	Crocker's Revised High Grade Special.	66920	Tetterington Bros. St. Catharines.	3 "	15	American Agr. Chem. Co., Buffalo.	. .....	.....
" 13	Crocker's Special Complete Manure.	66921	" " ..	3 "	15	" .	.....	....
" 13	Bradley's Patent Superphosphate.	66922	" "	3 "	15	" .	....	.....
" 13	Nitrate of Soda..	66923	" " ..	3 "	15	.. ..	Am. Agr. Chem. Co. Buffalo.	.....
" 13	Buffalo 12-2....	66924	Chas. Taylor & Co. St. Catharines.	3 "	15	Int. Agr. Fert. Co., Buffalo.	.....	.....
" 14	Buffalo Wheat Special.	66925	Ernest Platt, Welland.	3 "	15	Buffalo Fert. Wks. Buffalo	.....	.....
" 14	Vegetable and Potato.	66926	" " ..	3 "	15	"	.....	... .
" 14	Ideal Wheat and Corn.	66927	" " ..	3 "	15	"	... .	....
" 14	Farmer's Choice.	66928	" " ..	3 "	15	"	....	....
" 14	Buffalo 1-8-3...	66929	" " .	3 "	15	"	. ...	.....
" 14	Basic Slag A Quality.	66930	" " ..	3 "	15	....	Buffalo Fert. Wks. Buffalo.	....
" 15	Crocker's Wheat and Corn.	66931	F. A. J. Shephard, Queenston.	3 "	15	Amer. Agr. Chem. Co., Ltd., Buffalo.	....	....
" 15	Crocker's Potato, Hop and Tobacco.	66932	" "	3 "	15	" "	. .....	.....
" 15	Fertilizer.....	66933	Amer. Cyamide Co., Niagara Falls.	3 "	15	Vendors.....	..... .	.....
" 16	Schall's Special Corn and Potato.	66934	E. E. Morse, Fenwick.	3 "	15	Schall Sheldon Fert. Co., Buffalo.	.....	....
16	Schall's Special Tucker's Manure.	66935	" "	3 "	15	" "	....	.....
16	Schall's Standard.	66937	" "	3 "	15	" "	.. ..	....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total, including that of Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total, calculated as Ammonia.	Phosphate Acid per cent. Soluble in Water.	Phosphate Acid per cent. Reverted or Citrate Soluble.	Phosphate Acid per cent. Insoluble.	Phosphate Acid per cent. Total.	Phosphate Acid per cent. Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
144	As guaranteed	2 89	3·5	5·0	3·0	0·25	8·25	8 0	3 0	..	66873	Meets guaranty.
	As found.....	2·85	3·54	2·92	8·21	1·87	12·00	11·13	3 65	...		
146	As guaranteed	2·47	3·0	.....	20·0	1·0	21·0	20·0	.....	...	66874	Low in available phosphoric acid; but above guaranteed value. Pass.
	As found.....	4·38	5·44	.....	15 80	...	21·06	.. ...	....	.....	.....	
1300	As guaranteed	1·65	2·0	4 0	4·0	1·0	9·0	8·0	3 0	..	66920	Meets guaranty.
	As found... .	1·66	2 1	4 54	3 60	1 67	9·81	8·14	3·01	..		
1299	As guaranteed	0 82	1·0	4 0	4 0	1 0	9 0	8 0	3 0	..	66921	
	As found... .	0 80	0·99	4 66	3 89	1·45	10·00	8 55	3 23	...		
1293	As guaranteed	2 06	2·5	4 0	4·0	1·0	9 0	8 0	1·5	..	66922	
	As found.....	2 02	2 5	3·90	5 61	1·30	10·81	9·51	1 80	....		
1287	As guaranteed	15 0	18·23	..	... .	....	.. ..	.	. ..	.....	66923	
	As found.....	14 5	18 0	....	....	... ..	.	...	...	.....		
1148	As guaranteed	... ..	.....	9 0	3 0	1 0	13 0	12 0	2 0	.....	66924	
	As found...	.. ..	.....	7 48	4 41	2 3·	14 19	11 89	1 87	...		
678	As guaranteed	2 0	2 5	6 0	2 0	1·0	9 0	8 0	1 5	..	66925	
	As found . .	2 3	2 9	1·70	6 79	2 07	10 56	8 49	1 76	..		
1143	As guaranteed	2·5	3·0	6 0	2 0	1·0	9 0	8 0	3 0	..	66926	
	As found ..	2 24	2 8	5 76	3 19	0·92	9 87	8 95	3 05	..		
1145	As guaranteed	1 6	2 0	7 0	2 0	1 0	10 0	9 0	2 0	..	66927	
	As found ..	1 82	2 25	6 88	3 50	1·47	11 85	10 38	2 20	..		
1146	As guaranteed	0 80	1 0	7 0	3 0	1 0	11 0	10 0	2 0	..	66928	
	As found ..	0 68	0·85	6 46	4 23	3 25	13 94	10 69	2 05	..		
1149	As guaranteed	0 80	1 0	6 0	2 0	1 0	9 0	8 0	3 0	..	66929	
	As found	1 04	1·3	4 90	4 47	1 95	11 32	9 37	3 05	..		
557	As guaranteed	. .	...	..	12 8	..	. ..	....	..	..	66930	
	As found....	...	..	..	14 6	..	..	..	..	..		
1301	As guaranteed	2 06	2 5	4 0	4 0	1 0	9 0	8 0	1 5	..	66931	
	As found .	2 04	2 5	4 44	5 59	1·35	11 38	10 03	1 41	..		
1302	As guaranteed	2 06	2 5	4 0	4	1·0	9 0	8 0	3 0	..	66932	
	As found.. ..	1 96	2 4	4 12	4 76	1 87	10 75	8 88	3 11	..		
445	As guaranteed	14	17·0	....	....	...	.	....	.....	.....	66933	
	As found .	16 0	19 9	.	. .	..	..	..	..	..		
1320	As guaranteed	1 65	2 0	4 0	4 0	1 0	9 0	8 0	3 0	..	66934	
	As found . .	1 73	2 1	3 82	4 99	1 62	10 43	8 81	3 21	..		
1317	As guaranteed	2 47	3 0	4 0	4 0	1 0	9 0	8 0	3 0	..	66935	
	As found . .	2 35	2 95	9 14	0 30	1 40	10 87	9 47	3 09	..		
1315	As guaranteed	1 65	2 0	4 0	1 0	1 0	9 0	8 0	3 0	..	66936	
	As found . .	1 57	1 94	3 54	5 41	0 90	9 88	8 98	2 26	..		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF HAMILTON—								
1915.								
April 16	Schall's Fireside Phosphate.	66938	E. E. Morse Fenwick.	3 lbs.	15	Schall Sheldon Fert. Co., Buffalo.	.....	.. ..
" 16	Nitrate of Soda.	69939	" "	3 "	15	.....	Schall Sheldon Fert. Co., Buffalo.	.....
" 20	Bowker's Sure Crop Phosphate.	66940	Robert James, Dunnville.	3 "	15	Bowker's Fert. Co., Buffalo.	.....	.....
" 20	Bowker's Farm and Garden Phosphate.	66941	" "	3 "	15	" "	.....	.....
" 21	Bowker's Special Golden Harvest.	66942	W. E. Everingham, Canfield.	3 "	15	" "	.....	.....
DISTRICT OF WINDSOR—								
Mar. 17	Stone's 2-7-3....	54730	Wm. Stone & Sons, Ingersoll.	3 jars.	Nil.	Vendors.....	.....	.....
" 17	Stone's Fruit Fert.	54731	" "	3 "	"	"	.....	.....
" 17	Stone's Garden Fert.	54732	" "	3 "	"	"	.....	.....
" 17	Stone's Garden and Root.	54734	" "	3 "	"	"	.....	.....
" 17	Oxford Special .	54735	" "	3 "	"	"	.....	.....
" 17	Stone's 10-2.....	54736	" "	3 "	"	"	.....	.....
April 12	Grass and Grain	54745	A. M. Hamilton & Son, London.	3 "	"	W. H. Freeman, Hamilton.	.....	.....
" 12	Potato Manure.	54746	" "	3 "	"	" "	.....	.....
" 12	Celery and Vegetable.	54747	" "	3 "	"	" "	.....	.....
" 12	Sure Growth ...	54748	" "	3 "	"	" "	.....	.....
" 14	A-1 Potash.....	54749	Sargeant Co., Chatham.	3 "	"	Michigan Carbon Works, Detroit.	.....	.....
" 14	General Fert....	54750	" "	3 "	"	" "	.....	.....
" 14	Bone Black. ...	54751	" "	3 "	"	" "	.....	.....
" 14	Red Lime Phosphate.	54752	" "	3 "	"	" "	.....	.....
" 14	Bean Fertiliser.	54753	" "	3 "	"	" "	.....	.....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: including that of Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Phosphoric Acid per cent. Reverted or Citrate Soluble.	Phosphoric Acid per cent. Soluble.	Phosphoric Acid per cent. Total.	Phosphoric Acid per cent. Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
1318	As guaranteed	3·29	4·0	3·0	3·0	1·0	7 0	6·0	3·0	.....	66938	Meets guaranty.
	As found.....	3·33	4·0	3·40	3·29	1.75	8·44	6 69	2·80	... .		
1287	As guaranteed	15·0	18·23	..	.. ...	....	.....	.....	...	.....	66939	"
	As found. ...	15·42	19·1	.. ...	.....	..	....	. ...	.....	.. .		
1357	As guaranteed	0·82	1·0	5·0	4·0	1·0	10·0	9·0	2·0	....	66940	"
	As found.....	0·94	1·2	5·32	3·98	1 70	11·90	9 30	2 03	. ..		
1358	As guaranteed	1·65	2 0	4·0	4·0	1·0	9·0	8 0	2 0	....	66941	"
	As found.....	1 72	2 1	4·40	4 63	1 47	10 50	9 03	1 95	.....		
1355	As guaranteed	.....	.....	8 0	4·0	1·0	13·0	12·0	2·0	.....	66942	"
	As found....	....	.....	8 70	4 23	1 20	14 13	12 93	1·68	.....		
JOHN TALBOT, INSPECTOR.												
1173	As guaranteed	1·64	2·0	5·50	1·50	1 0	8	7 0	3.0	...	54730	Meets guaranty.
	As found.....	1·56	1·9	1 48	7 08	1 40	10 56	9 16	2 23	...		
1087	As guaranteed	1 64	2·0	10 50	1·50	1 50	13 50	12 0	3 0	....	54731	One per cent low in potash.
	As found. . ..	1 49	1 9	10 36	3·14	1·25	14 75	13 50	1·86	.....		
1089	As guaranteed	3·29	4·0	4·0	4 0	1·0	9 0	8·0	4 0	. . .	54732	One per cent low in potash. Compensated. Pass.
	As found.....	4·52	5 6	1 62	6 94	2 25	10 81	8 56	2 91	. .		
545	As guaranteed	1·64	2 0	6 50	1 50	1 25	9 25	8 0	2·0	. .	54734	Meets guaranty.
	As found. ..	1 76	2 2	1 14	7 59	1 02	9 75	8 73	2 34			
889	As guaranteed	0 83	1·0	9 0	1	1 0	11 0	10 0	2 0	...	54735	"
	As found	1·44	1·7	3 38	7 74	1 32	12 44	11·12	1 47	..		
1085	As guaranteed	.	....	9 50	0 50	1 0	11·0	10 0	2 0	...	54736	"
	As found....	.	..	2·94	8 52	0 60	12 06	11 46	2 87	.		
1253	As guaranteed	1 50	2 0	5 0	3 0	0 25	8 50	8 0	2 0	...	54745	"
	As found	2 52	3 1	4 18	5 43	1 32	10 93	9 61	2 47	...		
145	As guaranteed	2 47	3 0	5 0	3 0	0 25	8 25	8 0	5 0	...	54746	Low in potash, but compensated value. Pass.
	As found . .	4 21	5 2	6 50	4 40	2 35	13 31	10 96	2 17	...		
*148	As guaranteed	4 12	5 0	5 50	3 50	0 25	9 25	9 0	2 5	...	54747	Low in nitrogen.
	As found..	2 37	2 95	5 00	6 73	1 52	13 25	11 73	2 27	...		
141	As guaranteed	2·89	3·5	5 0	3 0	0 25	8 25	8 0	3 0	...	54748	Meets guaranty.
	As found	2 63	3 2	2 08	7 40	1 52	11 0	9 48	3 60	...		
1326	As guaranteed	0 82	1 0	4 0	4 0	1 0	9 0	8 0	3 0	...	54749	"
	As found..	0 99	1 22	4 84	3 78	2 25	10 87	8 62	2 99	...		
1327	As guaranteed	1 65	2 0	4 0	4 0	1 0	9 0	8 0	3 0	...	54750	"
	As found	1 72	2 1	3 34	5 96	2 70	12 00	9 30	2 97	...		
1330	As guaranteed	2 06	2 5	4 0	4 0	1 0	9 0	8 0	1 5	...	54751	"
	As found ..	1 94	2 38	3 60	5 18	2 65	11 58	8 73	1 51	...		
1325	As guaranteed	...	...	5 0	4 0	1 0	11 0	10 0	2 0	...	54752	"
	As found	...	...	4 86	5 52	3 47	13 75	10 38	1 97	...		
1328	As guaranteed	1 65	2 0	4 0	4 0	1 0	9 0	8 0	3 0	...	54753	"
	As found	1 68	2 1	4 52	4 31	2 30	11 13	8 83	3 03	...		

*Should have been sold as 1254. Claim NH_3 5, K_2O 2·5= P_2O_5 9·50. Mr Freeman Claims

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF WINDSOR—
1915.								
Apr. 14	2-8-3.....	54754	J. D. Soutar, Chatham.	3 jars.	Nil.	Buffalo Fert. Co. Buffalo.	.....	.....
" 14	Farmer's Choice.	54755	" " ..	3 "	"	" ..	....	.....
14	Ideal Brand....	54756	" " .	3 "	"	" ..	....	....
" 14	Best by test 2-8-2	54757	Canadian Fert. Co. Chatham.	3 "	"	Vendors	....	.....
" 15	Best by test 3-8-3	54758	" " ..	3 "	"	"	..... .	....
" 15	16% available Acid Phosphate.	54759	" " ..	3 "	"	"	....	.....
" 15	Best by test 4-8-3	54760	" " ..	3 "	"	"	.. . .	....
								DISTRICT OF MANITOBA—
Feb. 26	Bone Flour.....	61248	Steel Briggs Seed Co., Winnipeg.	3 lbs.	25	W. A. Freeman Co. Ltd. Hamilton.	.....	No Reg. No.
" 26	Flower Fertilizer	61249	" " ..	3 pkg.	25	"	... ...	" ..
. 27	Fertilizer . .	61250	Wm. Rennie Co. Portage Avenue, Winnipeg.	3 "	1.50	Bonora Chem. New York.	....	" ..
" 27	"	61251	" " ..	3 "	15	.....	Vendors....	....
								DISTRICT OF NELSON—
Mar. 13	"A" Fertilizer.	61771	Brackman Ker M. Co., Nelson.	3 lbs.	15	Victoria Chem. Co. Victoria.	....	....
" 13	"B" " ..	61772	" " ..	3 "	15	" ..	....	. .....
" 13	"D" " ..	61773	" " ..	3 "	15	" ..	.. ..	. .....
" 13	Nitrate of Soda.	61774	" " ..	3 "	15	" ..	....	....
" 13	Sulphate of Potash.	61775	" " ..	3 "	15	" ..	.....	.....
" 13	Muriate of Potash	61776	" " ..	3 "	15	" ..	.....	....
" 13	Superphosphate of Lime.	61777	" " ..	3 "	15	" ..	....	....
" 13	B. and K. Bone Meal.	61778	" " ..	3 "	15	Vendors	.....	....
" 13	"A" Fertilizer.	61779	P. Burns & Co. Nelson.	3 "	15	P. Burns Co. Calgary.	... .	.. ..
" 13	"B" " ..	61780	" " ..	3 "	15	" ..	....	....
" 13	"C" " ..	61781	" " ..	3 "	15	" .	.....	.....
" 13	"D" " ..	61782	" " ..	3 "	15	" ..	....	....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: including that of Nitric Acid or Ammonia, if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
1151	As guaranteed	1 6	2·0	6·0	2·0	1·0	9 0	8·0	3 0	.....	54745	Meets guaranty.
	As found.....	1·20	1·15	8·28	5·37	2·60	16·25	13·65	2·24	.....		
1146	As guaranteed	0 82	1·0	7·0	3·0	1 0	11·0	10·0	2·0	....	54755	"
	As found.....	0 93	1·13	5 98	4 28	1·87	12 13	10·26	2 10	....		
1145	As guaranteed	1·6	2 0	7·0	2 0	1 0	10 0	9 0	2 0	...	54756	"
	As found.....	1 58	1·92	6 58	3·84	2·02	12 44	10 42	2 24	....		
1154	As guaranteed	....	2·0	.....	.....	.....	8·0	.....	2·0	.....	54757	"
	As found.....	1·58	1·92	.....	.....	.....	9·49	..	1 44	...		
1153	As guaranteed	.....	3·0	.....	.....	.....	8·0	...	3 0	..	54758	"
	As found	2·64	3·21	.....	...	...	10 00	....	2 53	..		
1158	As guaranteed	.....	..	.....	..	...	....	16·0	....	..	54759	
	As found.....	...	..	....	.	...	..	17 60	...	...		
1152	As guaranteed	.....	4·0	.....	..	.....	8 0	...	3 0	..	54760	"
	As found.....	2 67	3·24	.....	....	...	10 19	....	3 01	..		
A. C. LARIVIERE, INSPECTOR.												
...	As guaranteed	.....	....	....	....	.....	....	....	..		61248	Sold without register number.
	As found.....	...	..	....	..	.	..	...	..			
...	As guaranteed	.....	....	..	.	.....	....	..	..	.. ..	61249	"
	As found ..	...	.....	...	...	..	...	..	..	.		
....	As guaranteed	..	..	...	...	...	....	....	...	..	61250	"
	As found ...	..	.	...	...	...	...	...	....	.		
969	As guaranteed		3·0	5 50	2 50	0 25	8 25	8·0	2 0		61251	Meets guaranty.
	As found ..	2 47	3 0	6 44	3 47	0 52	10 43	9 91	4 91			
THOS. PARKER, INSPECTOR.												
74	As guaranteed	4 0	..	10 00	..				7 0		61771	Meets guaranty.
	As found	3 81	4 63	10 00	1 78	0 67	12 45	11 78	7 92			
921	As guaranteed	3 50	..	..	..	..	9 0	..	11 0		61772	"
	As found ..	3 45	1 20	8 15	3 27	0 98	12 40	11 42	10 32			
76	As guaranteed	2 50	..	10 0	..	..	..	..	11 0	..	61773	"
	As found	2 29	2 69	9 10	3 21	0 99	13 30	12 31	12 [illegible]			
77	As guaranteed	15 0	..	..	..	..	..	..	..		61774	"
	As found	14 97	18 20	..	..	..	..	..	..			
78	As guaranteed	..	..	..	..	..	..	..	50 0		61775	"
	As found ..	..	..	..	..	..	..	..	50 87			
79	As guaranteed	..	..	..	..	..	..	..	50 0		61776	"
	As found	..	..	..	..	..	..	..	52 41			
80	As guaranteed	..	..	16 0	..	..	..	..	..		61777	"
	As found	..	..	13 35	5 64	1 66	20 65	18 99	..			
355	As guaranteed	..	3 5	..	..	..	20 0	..	..		61778	"
	As found	3 05	3 71	..	..	..	21 00	..	..			
430	As guaranteed	2 80	3 40	0 20	1 10	13 80	1 [illegible]	1 41	5 80		61779	"
	As found ..	3 54	4 30	0 15	11 70	7 08	18 88	11 80	8 74			
431	As guaranteed	6 10	7 40	0 11	9 28	2 81	12 20	9 39	4 75		61780	"
	As found ..	5 43	6 59	0 22	7 02	1 20	9 10	7 84	13 [illegible]			
432	As guaranteed	5 61	6 81	0 80	3 07	6 67	10 60	3 93	3 71		61781	"
	As found	6 47	7 87	0 28	8 28	2 03	10 60	8 56	7 46			
433	As guaranteed	6 57	7 98	0 17	8 20	4 30	12 73	8 41	4 00		61782	"
	As found	7 73	9 40	0 24	6 90	1 21	8 35	7 14	7 63			

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).
				Quantity.	Cost.	Manufacturer.	Furnisher.	
				DISTRICT OF VANCOUVER—				
1915.								
Mar. 10	B. and K. Bone Meal.	55210	Kew Gardens 503 Perder St., Van.	3 jars.	10	Brackman Ker M. Co., Victoria.	.....	.....
" 10	Ground Bone No. 2.	55211	" " ..	3 "	10	Vane, Prince Rupert Meat, New Westminster.	.....	.....
" 10	Fertilizer B.....	55212	Brackman Ker M. Co., Vancouver.	3 "	30	Victoria Chem. Co. Victoria.	.....	.....
" 10	" B. Special	55213	" " ..	3 "	30	" ..	.....	.....
" 10	" C.	55214	" " ..	3 "	30	" ..	.....	.....
" 10	" D.	55215	" " ..	3 "	30	" ..	.....	.....
" 11	Dried Blood...	55216	P. Burns Co. Ltd. Vancouver.	3 "	Nil.	Vendors.....	.....	.....
" 11	Tankage.....	55217	P. Burns Co., Ltd., Vancouver.	3 jars.	Nil.	Vendors....	.....	.....
" 11	Fertilizer A	55218	Brackman-Ker M. Co., Vancouver.	3 "	30	Victoria Chem. Co., Victoria.	.....	.....
" 11	Sulphate of Potash.	55219	" " ..	3 "	30	" ..	.....	.....
" 11	Superphosphate of Lime.	55220	" " ..	3 "	30	" ..	.....	.....
" 11	Nitrate of Soda.	55221	" " .	3 "	30	" ..	.....	.....
" 11	Muriate of Potash.	55222	" " ..	3 "	30	" ..	.....	.....
" 11	Flower Fertilizer.	55223	A. J. Woodward, 667 Granville St., Vancouver.	3pkgs.	75	" ..	.....	.....
" 11	Canary Guano..	55224	Brown Bros. & Co., Ltd., 785 Granville St., Vanc.	3 tins.	100	The Chem. Union, Ipswich, Eng.	.....	Not registered. Proprietor said he would apply for Reg. No.
" 12	Lawn Fertilizer.	55225	Campbell's Ltd., Granville and Hastings Sts., Vancouver.	3pkgs.	75	Victoria Chem. Co., Victoria.	.....	.....
" 12	Sweet Pea Fertilizer.	55226	" " ..	3 "	75	" ..	.....	.....
" 12	Thomas Phosphate.	55227	Brackman-Ker M. Co., Vancouver.	3 jars.	30	" ..	.....	.....
" 15	Nitrate of Lime.	55228	Wm. Rennie Co., Ltd., Vancouver.	3 "	25	Unknown	.....	.....
" 19	Tankage.. ...	55229	Vanc. Prince Rupert Meat Co., New Westminster.	3 "	....	Vendors ...	.....	.....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: including that of Nitric Acid or Ammonia if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.

E. J. MORGAN, INSPECTOR.

		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		
355	As guaranteed	.....	3·50	.....	. . .	.....	26·0	.....	.....	... .	55210	Meets guaranty.
	As found.....	2·83	3·44	... ..	.....	.. ...	26·90	... .	....	.....		
905	As guaranteed	4·10	4·95	.....	10·94	14·90	25·90	11·0	0·05	. .	55211	"
	As found....	4·11	5·00	. ..	12·10	12·10	24·20	12·10	0 04	.....		
924	As guaranteed	3·50	.....	.....	...	. ..	9·0	....	11·0	....	55212	"
	As found.....	3·54	4·31	10·10	0·72	0·58	11·40	10·82	10·06	...		
924	As guaranteed	3·50	.....	.....	. .	.....	9·0	....	11·0	.....	55213	"
	As found.....	3·55	4·31	7 90	2·19	0·91	11.00	10·09	12·58	....		
75	As guaranteed	....	..	12·50	.....	.....	....		11 0	.....	55214	"
	As found.....	....	.....	12·00	2·16	0 69	14·85	14·16	11 30	....		
76	As guaranteed	2·50	....	10 0	....	.....	.....	...	11·0	....	55215	"
	As found. ...	2·21	2·68	9·00	3 36	0·79	13·15	12 36	12 23	.....		
603	As guaranteed	12·34	15·00	.....	.. .	.....	.....	....	.....	....	55216	"
	As found.....	13·10	15·92	. ...	....	.....	....	.....	.....	.....		
602	As guaranteed	6·37	7·75	. ..	.....	...	11·0	....	....	...	55217	"
	As found.	6·17	7·55	.. .	..	.....	12·55	. ....	.....	....		
73	As guaranteed	4·0	....	10·0	.....	.....	....	....	7·0	. .	55218	"
	As found.....	3 72	4 52	10.35	1·19	0 36	11·90	11 54	8 04	....		
78	As guaranteed	.....	.. .	.	.....	..	.....	.....	50 0	.. .	55219	"
	As found.....	.....	....	...	.....	.....	.....	.....	50 47	.		
80	As guaranteed	.....	. ..	16·0	....	...	.....	.....	..	.....	55220	"
	As found.....	.....	....	14·65	3 39	2 21	20 25	18 04	.....			
77	As guaranteed	15 0	...	.....	.....	....	....	...	. .	...	55221	"
	As found.....	15·10	18·36	.....	.....	..	....	...	...	...		
79	As guaranteed	.....	.....	.. ..	.....	.....	... ..	...	50 0	.	55222	"
	As found ...	.....	.....	.. ..	.. ..	.....	... ..	...	52 89	.		
1095	As guaranteed	4 0	4 86	10 0	.	.	10 0	10 0	8 0	.....	55223	"
	As found....	4 40	5 35	13·55	.....	0 10	13·65	13·55	9 36	...		
....	As guaranteed	.....	...	...	.....	.....	.....	..	.....		55224	Registration number applied for, but not granted at time of sale.
	As found.....	4 96	6·03	0 50	4 90	9 0	14 40	5 40	0 82			
1096	As guaranteed	5·0	6 07	10 0	...	...	10 0	10 0	5 0	...	55225	Meets guaranty.
	As found ...	5 56	6 76	14 10	0 03	0 12	14 25	14 13	5 98			
1097	As guaranteed	2·0	2 43	11 0	...	...	11 0	11 0	10 0	...	55226	"
	As found. ..	2 30	2 79	14 40	0 52	0 18	15 10	14 92	11 07	...		
513	As guaranteed	...	...	...	16 0	...	...	16 0	...	...	55227	"
	As found	...	...	..	16 88	...	18 00	16 88	...	...		
1351	As guaranteed	13 0	15 70	...	...	...	...	...	...	...	55228	"
	As found. .	12·76	15 52	...	...	...	...	...	...	...		
902	As guaranteed	7 20	8 75	...	4 50	6 30	10 80	4 60	0 25	...	55229	"
	As found....	7 07	8 60	....	7 80	1 50	9 30	7 80	0 24	...		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
						DISTRICT OF VANCOUVER—		
1915.								
Mar. 19	Dried Blood....	55230	Vanc. Prince Rupert Meat Co., New Westminster.	3 jars.	....	Vendors.....	... .	. .....
" 19	Ground Bone No. 1.	55231	" " ..	3 "	....	" .	... .	....
" 19	Ground Bone No. 3.	55232	" " ..	3 "	....	" ..	....	.....
Apr. 8	Ritchie's Fertilizer.	55233	Ritchie Brand & Co., 723 Robson St., Vancouver.	3 "	50	Richardson Chem. Manure Co., Ltd., Belfast, Ireland.	....	.....
						DISTRICT OF VICTORIA—		
Mar. 30	Whale Guano...	62084	Brackman-Ker M. Co., Victoria.	2 lbs.	5	Can. North Pac. Fisheries, Ltd., Victoria.	.....	.....
" 30	Bone Meal.....	62085	" " ..	2 "	5	Vendors	.....	....
" 30	Complete.....	62086	Sylvester Bros., 709 Yates St., Victoria.	2 "	Nil.	" ..	.....	....
" 31	Fertilizer A	62087	Victoria Chem. Co., Victoria.	2 "	6	" ..	... .	....
" 31	" B	62088	" " ..	2 "	6	" ..	....	.....
" 31	" C	62089	" " ..	2 "	6	" ..	.....	.....
" 31	" D	62090	" " ..	2 "	6	" ..	... .	....
" 31	Muriate of Potash.	62091	" " ..	2 "	6	Meyer-Wilson, San Francisco.	.....	.....
" 31	Sulphate of Potash.	62092	" " ..	2 "	6	" ..	.....	....
" 31	Superphosphate of Lime.	62093	" " ..	2 "	6	Vendors.....	.....	... .
" 31	Thomas Phosphate.	62094	" " ..	2 "	6	Sydney Smith, London, Eng.	.. ..	.....
" 31	Nitrate of Soda.	62095	" " ..	2 "	6	Grace & Co., San Francisco.	.....	.....
" 31	Bone Meal.....	62096	" " ..	2 "	6	Can. Northern Pacific Fisheries, Ltd., Victoria.	....	.....
" 31	Two Blade Brand Sweet Peas.	62097	" " ..	2 "	6	Vendors ..	.. ..	.....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis: Nitrogen p.c. — Total: including that of Nitric Acid or Ammonia if present.	Nitrogen p.c. — Total: Calculated as Ammonia.	Phosphoric Acid per cent. — Soluble in Water.	Phosphoric Acid per cent. — Reverted or Citrate Soluble.	Phosphoric Acid per cent. — Insoluble.	Phosphoric Acid per cent. — Total.	Phosphoric Acid per cent. — Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
903	As guaranteed	12·25	14·90	.....	1·10	0·59	1·73	1 14	0 05	....	55230	Meets guaranty.
	As found....	12·96	15 76	....	0 54	0 11	0·65	0·54	0 21	.....		
904	As guaranteed	4 10	4 95	.....	10·94	14 96	25·90	11 00	0·05	....	55231	"
	As found....	4·20	5·10	.....	13 60	10 60	23·6	13·60	0 04	.....		
906	As guaranteed	4·10	4 95	.....	10 94	14 90	25 90	11 00	0 05	....	55232	"
	As found....	4·04	4 90	.....	14·45	11 45	25 96	14 45	0 06	.....		
1247	As guaranteed	3·50	4·25	5·10	3 20	3 21	11 51	8 30	5 82	....	55233	"
	As found....	3·19	3·88	6·05	5 60	1·40	12 45	11 05	5 87	....		

D. O'SULLIVAN, INSPECTOR.

589	As guaranteed	10 30	12 50	.....	...	....	...	...	.....	.	62084	Meets guaranty.
	As found.....	11 03	13·40	.....	....	.....	...	.....	.....	.....		
355	As guaranteed		3·50	....	....	....	26 0	.	...	...	62085	"
	As found	3·13	3 81	....	...	...	26 80					
884	As guaranteed	1 68	2·04	.....	5·60	13·40	19·00	5 60	.	...	62086	Four per cent. low in phosphoric acid.
	As found.....	1 22	1 48	0 05	7·90	4 70	12 6	7 95				
73	As guaranteed	4 0	...	10 0	...		..	...	7 0	...	62087	Meets guaranty.
	As found ..	3 47	4 22	10 05	1·20	0 30	11·55	11 25	8 08			
924	As guaranteed	3 50	.				9 0	.	11 0		62088	"
	As found	3·35	4·07	9 60	0 97	0 38	10 35	9 97	11 00	.		
75	As guaranteed			12 50	.				11 0		62089	"
	As found			12 70	1 31	0 24	14 27	14 01	10 78			
76	As guaranteed	2 50		10 0					11 0		62090	"
	As found ..	2 54	3 09	10 05	0 96	0·44	11 45	11 01	11 15			
79	As guaranteed	.	.						50 0		62091	"
	As found ..								52 21			
78	As guaranteed								50 0		62092	"
	As found								50 27			
80	As guaranteed			16 0							62093	"
	As found			15 65	1 33	0 77	17 75	16 98				
513	As guaranteed				16 0			16 0			62094	"
	As found				15 92		17 81	15 98				
77	As guaranteed	15 0									62095	"
	As found	15 80	19 20									
590	As guaranteed	2 88	3 50				27 48				62096	"
	As found	3 52	4 28				25 80					
1097	As guaranteed	2 00	2 43	11 0			11 0	11 0	10 0		62097	"
	As found	2 30	2 79	13 30	1 00	0 15	14 45	14 30	10 76			

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF VICTORIA—								
1915.								
April 1	Two-Blade Brand for Flowers.	62098	Victoria Chem. Co., Victoria.	2 lbs.	6	Vendors.....	.....	.....
" 1	Two-Blade Brand for Lawns.	62099	" "	2 "	6	"	.....	.....
DISTRICT OF ALBERTA—								
May 28	Fertilizer.....	52168	Swift Can. Co., Edmonton.	1½ lbs.	5	Vendors.....	.....	.....
" 28	"	52169	" "	1½ "	5	"	.....	.....
" 28	"	52170	P. Burns & Co., Calgary.	1½ "	5	"	.....	.....
DISTRICT OF PRINCE EDWARD ISLAND—								
May 13	Superphosphate.	60306	Auld Bros. Ltd., Charlottetown.	3 lbs.	....	Amer. Agr. Chem. Co., New York.	.....	.....
June 1	"	60307	Gill & Lantz, Charlottetown.	3 "	....	Nitrate Agencies, New York.	.....	.....
" 1	Nitrate of Soda.	60308	Auld Bros. Ltd., Charlottetown.	3 "	....	.....	H. J. Baker Bros., New York.	.....
" 1	Basic Slag	60309	" "	3 "	....	Cross Fert. Co., Sydney.	.....	.....
" 4	Superphospnate.	60310	A. Horne & Co., Charlottetown.	3 "	....	Nitrate Agencies, New York.	.....	.....
" 4	Nitrate of Soda.	60311	Gill & Lantz, Charlottetown.	3 "	....	"	.....	.....
" 4	" "	60312	A. Horne & Co., Charlottetown.	3 "	....	"	.....	.....

SESSIONAL PAPER No. 14

FERTILIZERS AS SOLD.

Registration Number.	Analysis of Sample.	Results of Analysis. Nitrogen p.c. Total: including that of Nitric Acid or Ammonia if present.	Nitrogen p.c. Total: Calculated as Ammonia.	Phosphoric Acid per cent. Soluble in Water.	Reverted or Citrate Soluble.	Insoluble.	Total.	Total Available.	Potash.	Fineness.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
1095	As guaranteed	4·0	4·86	10·0	.....	....	10·0	10·0	8·0	....	62098	Meets guaranty.
	As found.....	3·92	4·76	13·70	.....	0·09	13·79	13·70	8·62	....		
1096	As guaranteed	5·0	6·07	10·0	.....	.....	10·0	10·0	5·0	.....	62099	"
	As found.....	4·80	5·84	13·45	.....	0·10	13·55	13·45	5·67	....		
A. W. R. MARKLEY, INSPECTOR.												
1447	As guaranteed	5·34	6·50	....	....	.....	11·0	.....	3·0	.....	52168	Meets guaranty.
	As found.....	5·52	6·70	....	....	....	12·00	....	4·08	.....		
1448	As guaranteed	5·76	7·00	.....	....	....	9·0	....	2·0	.....	52169	"
	As found.....	5·82	7·07	.....	....	.....	9·87	....	2·90	....		
431	As guaranteed	6·10	7·40	0·11	9·23	2·31	12·20	9·39	11·0	.....	52170	2% low in phosphoric acid. Nearly meets guaranteed value. Pass.
	As found.....	6·32	7·68	0·80	7·39	1·97	9·44	7·47	12·21	.....		
WM. A. WEEKS, INSPECTOR.												
985	As guaranteed	....	....	.....	....	.....	14·0	....	....	....	60306	Meets guaranty.
	As found	....	....	8·35	4·41	2·34	15·10	12·76	....	....		
970	As guaranteed	....	....	.....	.....	.....	.....	16·	.....	.....	60307	"
	As found....	....	....	13·35	1·85	1·82	17·02	15·20	....	....		
1468	As guaranteed	15·	18·	....	.....	.....	.....	.....	.....	.....	60308	"
	As found.....	15·76	19·12	....	....	.....	.....	.....	.....	.....		
1067	As guaranteed	....	.....	....	10·0	4·0	14·0	10·0	.....	.....	60309	"
	As found	....	.....	....	12·18	1·20	13·38	12·18	.....	.....		
970	As guaranteed	....	....	.....	.....	.....	.....	16·0	.....	.....	60310	"
	As found.....	....	....	12·88	1·76	1·87	16·51	14·64	.....	.....		
255	As guaranteed	15·0	18·25	.....	.....	.....	.....	.....	.....	.....	60311	"
	As found.....	15·44	18·77	.....	.....	.....	.....	.....	.....	.....		
255	As guaranteed	15·0	18·25	.....	.....	.....	.....	.....	.....	.....	60312	"
	As found.....	15·19	18·44	.....	.....	.....	.....	.....	.....	.....		

APPENDIX I.

BULLETIN No. 318—MILK IN SMALLER TOWNS AND VILLAGES.

OTTAWA, August 5, 1915.

J. U. VINCENT, Esq.,
Deputy Minister Inland Revenue.

SIR,—I beg to hand you a report upon two hundred and nine (209) samples of milk, purchased by our inspectors in various towns and villages throughout Canada in April, May, June and July of this year. This is the third of a series of inspections of the kind, instituted in consequence of widely extended complaint to the effect that, while the cities and larger towns of Canada, as a rule, provide systematic inspection of their milk supply, the smaller towns and villages are not so protected.

The complaint referred to is found to have a basis in fact. Bulletin No. 298 reports upon fifty-nine (59) samples, of which twenty-six (26) are below the legal standard. Bulletin No. 310 reports concerning two hundred and eight (208) samples, of which twenty-one (21) were below legal standard, and sixteen (16) were classed as doubtful.

The results of the present report may be summarized as follows:—

	Samples.
Found genuine (up to standard requirements)	152
" " but dirty	12
" doubtful, as being below standard requirements, but not so definitely as to be judged adulterated	17
" Adulterated	27
" so far spoiled as to be unworkable	1
Total	209

When visible and measurable amount of dirt is present in milk, this constitutes adulteration, even though the sample is otherwise genuine. Inasmuch, however, as no quantitative standard in this regard has been fixed, I have not judged these (12) samples as adulterated, but have merely stated a fact. It may be necessary to amend our standards in this matter, so as to positively fix a limit for dirt. This dirt consists of dust, hairs and cow-dung, and is most offensive and objectionable, as well as dangerous to health.

Adulteration of twenty-seven (27) samples consists in notable departure from legal standards in the matter of fat content, non-fat solids, and other data. In nine (9) of these cases, the milk fat, while distinctly less than the legal standard requires (3·25 per cent) is not less than we know to be contained in the milk of certain individual cows, under exceptional conditions, such as improper feeding. The remaining samples (eighteen in number) indicate such marked deviation from standard requirements, as to admit of no recommendation for leniency.

These are the following:—

Sample Number.	Fat.	Non-fat Solids.
3846	2·27	8·95
3852	2·47	9·02
3853	2·08	9·15
3547	1·29	8·82
3550	1·32	8·89
3580	2·48	9·98
66550	2·44	9·26
66558	1·54	9·13
67039	2·59	9·03
67040	2·46	9·23
67042	2·30	9·46
67043	2·59	9·42
67044	2·61	9·27
52180	0·74	8·56
66702	2·48	9·02
58176	2·55	9·01
66707	2·67	7·82
66974	2·41	7·57

In all but the last two cases, the results of analysis point to removal of milk fat (cream) only; in the last two cases, the abnormally low non-fat solids, indicate addition of water.

I beg to recommend publication of this report as Bulletin No. 318.

I have the honour to be, sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

CORRECTION.

BULLETIN No. 301.—WHITE PAINT.

In this bulletin under "remarks and opinion of the Chief Analyst" the word barytes appears. Instead of this word, the term barium sulphate should be used. Barium Sulphate is used as a paint material either as the ground mineral heavy spar or barytes, or as a product of the interaction of barium sulphide and zinc sulphate, which results in the formation of lithopone, a pigment consisting essentially of 30 per cent. of zinc sulphide and of 70 per cent. barium sulphate. This product is commercially known as lithopone and is a greatly more desirable paint material than the pulverized mineral above referred to.

It has been ascertained that it is in this last form (lithopone) that barium sulphate is present in most of the samples reported in Bulletin No. 301.

Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
						DISTRICT OF NOVA SCOTIA—	
1915.							
June 30	Milk	54071	Ed. Rose, Yarmouth	1 qt.	5	Vendor	
" 30	"	54072	G. L. Cleaveland, Yarmouth.	1 "	5	Unknown	
" 30	"	54073	F. L. Marshall, Yarmouth.	1 "	5	Vendor	
July 2	"	54074	W. C. Warrington, Digby.	1 "	7	Unknown	
" 2	"	54075	C. J. Young, Digby	1 "	7	Vendor	
" 8	"	54076	J. A. Goudrey, Mahone Bay.	1 "	7	"	
" 8	"	54077	Mrs. Henry Schnose, Mahone Bay.	1 "	7	"	
" 9	"	54078	Willard Wile, Bridgewater.	1 "	6	"	
" 9	"	54079	C. D. Walker, Bridgewater.	1 "	7	"	
" 13	"	54080	Geo. Bell, Dartmouth	1 "	8	"	
						DISTRICT OF NEW BRUNSWICK—	
1915.							
May 28	Milk	66056	J. Warren James, Andover.	1 qt.	10	Vendor	
June 8	" (Whole).	66057	Obder Little, Harvey Station, York Co.	1 "	10	"	
" 10	"	66058	Jos. M. McCullough, St. Andrews.	1 "	10	"	
" 10	"	66059	J. D. Grimmer, St. Andrews.	1 "	10	"	
" 10	"	66060	S. H. Rigby, St. Andrews.	1 "	10	Charles Garness, Bayside, St. Croix.	
" 15	Milk	66061	Wm. Durnnin, Norton, Kings Co.	1 "	10	Vendor	
" 15	"	66062	C. L. O'Neill, Norton, Kings Co.	1 "	10	"	
" 15	"	66063	Bliss Mann, Norton, Kings Co.	1 "	10	"	
" 15	"	66064	A. H. Wilcox, Norton, Kings Co.	1 "	10	"	
" 16	"	66065	Harry McQuin, Sussex	1 "	10	James McElroy, Sussex.	
						DISTRICT OF QUEBEC CITY—	
May 3	Lait	56375	Pierre Giguère, Place sans bruit.	1 pte.	12		
" 3	"	56376	Arthur Legard, Place sans bruit.	1 "	12		
	"	56377	Louis Cloutier, Place sans bruit.	1 "	12		

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.						No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. at 20° C.	Total Solids.	Fat.	Non-fat Solids.	R.*	Cleanliness.		
R. J. WAUGH, INSPECTOR.								
		p. c.	p. c.	p. c.				
.....	1·0320	12·80	4·13	8·67	.....	Dirt present	54071	Genuine, but not clean.
....	1·0335	13·42	4·12	9·30	.....	"	54072	" "
....	1·0335	12·52	3·53	8·99	.....	"	54073	" "
....	1·0290	11·72	3·77	7·95	... ..	"	54074	Non-fat solids low, and not clean. Doubtful.
....	1·0315	15·75	6·86	8·89	.....	"	54075	Genuine, but not clean.
....	1·0310	13·13	4·23	8·90	.....	"	54076	" "
....	1·0320	15·22	5·93	9·29	.. ..	"	54077	" "
....	1·0320	12·92	4·08	8·84	..	"	54078	" "
....	1·0285	13·40	5·75	7·65	.. . .	"	54079	Non-fat solids low, and not clean. Doubtful.
....	1·0320	12·65	3·89	8·76	.....	"	54080	Genuine, but not clean.
JOHN C. FERGUSON, INSPECTOR.								
		p. c.	p. c.	p. c.				
....	1·0325	13·70	4·78	8·92	....	Clean.	66056	Genuine.
....	1·0320	13·12	4·34	8·78	...	"	66057	"
....	1·0315	13·20	4·49	8·71	. .	"	66058	"
....	1·0320	13·14	4·40	8·74	.. .	"	66059	"
....	1·0325	13·27	4·26	9·01	....	"	66060	"
....	1·0320	13·40	4·61	8·79	..	Slight dirt.	66061	"
....	1·0327	12·51	3·69	8·82	.....	"	66062	"
....	1·0310	12·07	3·83	8·24	.....	"	66063	"
....	1·0318	13·00	4·17	8·83	.....	Dirt present	66064	Genuine, but dirty
. ...	1·0320	12·65	4·08	8·57	.....	Clean	66065	"
F. X. W. E. BELAND, INSPECTOR.								
.....	1·0320	11·20	2·71	8·49	.....	Dirt present	86375	Fat too low, and dirty. Adulterated.
.....	1·0315	13·82	5·10	8·72	.....	"	86376	Genuine, but dirty.
....	1·0345	14·02	4·29	9·73	.....	Clean	86377	Genuine.

* Immersion Refractometer reading on Milk Serum at 20° C.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF QUEBEC CITY—	
1915.							
May 3	Lait.....	56378	Edmond Leclerc, Petite Rivière.	1 pte.	12	.....	.....
" 3	"	56379	Arthur Giguère, Les Saulds.	1 " ..	10	.....	.....
" 4	"	55380	Ignace Verret, Rang Sillery.	1 " ..	10	.....	.....
" 4	"	56381	Joseph Paquet, Rang Sillery.	1 " ..	12	.....	.....
" 4	"	56382	Jacques Robitaille, Les Saulds.	1 " ..	12	.....	.....
" 4	"	56383	Michael Denis, Les Saulds.	1 " ..	12	.....	.....
" 4	"	56384	Meleste Dubuc, Les Saulds.	1 " ..	12	.....	.....
						DISTRICT OF QUEBEC—	
May 2	Lait.....	3839	F. X. Demers, St. Malo..	1 Pte.	15	.....	.....
" 2	"	3846	E. Juneau, St. Malo	1 "	15	.....	.....
" 3	"	3847	F. X. Latulipe, Charlebourg.	1 "	15	.....	.....
" 7	"	3848	J. X. Dagnault, St. Joseph, Levis.	1 "	15	Vendor.....	.....
" 8	"	3849	L. Poire, St. Joseph. Levis.	1 "	15	"	.....
" 10	"	3850	A. Turgeon, St. Joseph, Levis.	1 "	15	"	.....
" 28	"	3851	O. Samson, St. Joseph, Levis.	1 "	15	"	.....
" 11	"	3852	O. Cote, St. Joseph, Levis	1 "	15	"	.....
" 12	"	3853	P. Dumas, St. Joseph, Levis.	1 "	15	"	.....
" 14	"	3854	E. Riviere, Ste. Fois, Quebec.	1 "	15	"	.....
" 4	"	3547	Arthur Labbe, Ste. Magloire.	1 chop	3	.....	.....
" 5	"	3550	Jos. Labbe, Ste. Magloire.	1 "	3	.....	.....
" 7	"	3557	Alfred Gagne, St. Damien	1 "	3	.....	.....
" 8	"	3564	Marcel Lapierre, Ste. Charle.	1 "	3	.....	.....
" 8	"	3565	Wilfrid Roy, Ste. Charle	1 "	3	.....	.....
" 10	"	3571	Andre Audet, Armagh...	1 "	3	.....	.....
" 10	"	3573	François Cote, Armagh...	1 "	3	.....	.....
" 10	"	3575	Adolphe Turgeon, Armagh.	1 "	3	.....	.....
" 10	"	3580	Donat Brochu, Armagh..	1 "	3	.....	.....
" 10	"	3582	Lucien Bernard, Armagh	1 "	3	.....	.....

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.						No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. at 20° C.	Total Solids.	Fat.	Non-fat Solids.	R *	Cleanliness.		
Concluded.								
		p. c.	p. c.	p. c.				
....	1·0310	13·91	5·23	8 68	.....	Clean ..	56378	Genuine.
....	1·0315	12·65	4·10	8·55	.....	„	56379	„
....	1·0330	13·18	4 32	8·86	.....	Dirty.	56380	„ but dirty.
....	1·0315	13·12	4 26	8·86	.. ...	Clean.	56381	„
.. . .	1·0285	19·32	11·22	8·10	.....	Dirt present.	56382	„ but dirty.
....	1·0325	12·40	3·82	8 58	..	Clean.	56383	„
....	1·0320	14 30	5·18	9 12	.... .	„	56384	„
J. E. AUDET, O. BROCHU, N. CADIEUX, T. GENDREAU, TEMPORARY INSPECTORS.								
....	1·0303	11·09	2·79	8 83	42·2	Clean ..	3839	Fat too low. Adulterated
....	1·0315	11·22	2·27	8 95	42 2	„ ...	3840	„
....	1 0321	12 23	2 81	9 42	43·5	„ ...	3847	„
....	1 0311	12 35	3 35	9 00	43·8	„ ...	3848	Genuine.
... .	1·0312	12 91	3 75	9 16	42 1	„ ..	3849	„
....	1·0311	13·53	4·39	9 14	42 9	„ .	3850	„
... .	1 0314	12 48	3 32	9 16	42·5	„ ..	3851	„
....	1 0292	11 49	2 17	9 02	43 8	..	3852	Fat too low. Adulterated
.. ..	1 0297	11 23	2 08	9 15	42 9	„	3853	„
. . ... .	1 0290	11·82	2 79	9 03	42 5	„	3854	„
... .	1 0321	10 11	1 29	8 82	43 3	„	3547	Fat much too low. Adulterated
....	1 0315	10 21	1 32	8 89	42 9	„	3548	„
. ...	1 0319	14 32	4 64	9 08	44 7	..	3549	Genuine.
....	1 0296	11·66	2·78	8 88	43 1	..	3550	Fat too low. Adulterated
. . ..	1 0285	11 64	2 83	8 81	43 0	..	3551	„
....	1 0291	12·97	3 84	9 13	43 6	..	3552	Genuine.
. . ..	1 0331	12 60	3 00	9 60	44 5	..	3553	„
..... .	1 0310	13·29	4 12	9 17	42 2	..	3554	„
....	1 0312	12·46	2 48	9 98	41 3	..	3555	Fat too low. Adulterated
.. . .	1 0304	16 08	6 51	9 57	44 4	..	3556	Genuine.

*Immersion refractometer reading on milk serum at 20° C.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF QUEBEC—
1915.							
April 29	Lait.. ...	277	François Lebeau, St. Jerome.	1 chop	5	....	.....
" 29	"	278	Hyacinthe Bastien, St. Jerome.	1 "	5	.....	... .
" 29	"	279	Exalephat Marcotte, St. Jerome.	1 "	5	....	....
May 4	"	288	Wilfred Groux, Ste Agathe des Monts.	1 "	5	....	....
" 4	"	289	Fidime Baulme, Ste Agathe des Monts.	1 "	5	....	. . ..
April 24	"	2757	Jos. Gaye, Montmagny..	1 pte.	7	Vendor.....	....
" 24	"	2758	Louis Fetu, St. Thomas..	1 "	7	"	....
" 24	"	2759	Adelard Ganiach, Montmagny.	1 "	7	"	.....
" 26	"	2760	Jos. Beaumont, St. Thomas.	1 "	7	"	.....
" 26	"	2761	Eg. Bernatchez, Montmagny.	1 "	7	"	.....
							DISTRICT OF THREE RIVERS—
May 3	Milk.....	67948	Ludger Peltier, Joliette..	1 qt .	6	Vendor.....	..... .
" 3	"	67949	Joseph Coderre.....	1 " .	6	De Blais & Ducharme St. Ch. Borromee.	....
" 3	"	67950	Dolphis Perraut, Joliette.	1 " .	6	J. L. Basinet, St. Paul de Joliette.	.....
" 3	"	67951	Samuel Vessot, " .	1 " .	6	Vendor.....	....
" 3	"	67953	Napoleon Coutu, " .	1 " .	6	Nadeau & Jetti, St. Chas. Borromee.	.....
" 5	"	67954	I. H. Coulombe, Berthierville.	1 " .	6	Vendor	.....
" 6	"	67955	Xavier Piche, "	1 " .	6	"	....
" 22	"	67956	Raoul Lorrain, Charlemagne.	1 " .	6	"	....
" 22	"	67964	Egide Leveille, St. Paul L'Ermite.	1 " .	10	"	....
" 26	"	69104	I. Ed. Amyrault, L'Epiphanie.	1 " .	6	"	....
							DISTRICT OF EASTERN TOWNSHIPS—
May 26	Milk	57956	J. O. Roy, Magog..	1 qt..	5	....	....
" 26	"	57957	Delphis Dupuis, Magog .	1 " ..	5	....	.....
" 26	"	57958	Joseph Thisdell, Magog..	1 " ..	5	....	.....
" 26	"	57959	William Chaput, Magog..	1 " ..	5	....	....

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.						No. of Sample.	Remarks, and Opinion of the Chief Analyst.
	Sp. gr. at 20° C.	Total Solids.	Fat.	Non-fat Solids.	R*.	Cleanliness.		
Concluded.								
		p. c.	p. c.	p. c.				
....	1·0319	13·28	4·13	9·15	44·3	Clean ..	277	Genuine.
... .	1·0310	13·42	4·52	8 90	43·8	" ...	278	"
....	1·0319	13·04	3 89	9·15	44·1	" ...	279	"
....	1·0326	12·07	2·95	9·12	43·7	" ...	288	Fat slightly low, pass as doubtful.
....	1·0294	13·04	4·29	8·75	42·6	" ..	289	Genuine.
....	1 0317	12·36	3·55	8 81	43·4	" ..	2757	"
....	1·0320	14·12	4·75	9·37	43·8	" ..	2758	"
....	1·0319	13·73	4·44	9·29	43·3	" ..	2759	"
....	1·0302	13·47	4·35	9 12	41·7	" ..	2760	"
....	1·0293	12·82	4·26	8 56	42 0	" ..	2761	"
Dr. V. P. LAVALLEE, INSPECTOR.								
....	1·0314	12 55	3·42	9 13	43 2	Clean ..	67948	Genuine.
. ...	1 0315	12 20	3·13	9 07	43 7	" ..	67949	"
....	1 0299	11·80	3·07	8·73	43 2	" ..	67950	"
....	.....	... ...	....	—	.. .	" ..	67951	Not worked.
....	1 0276	11 99	3 47	8 52	43·8	"	67953	Genuine.
....	1 0300	12·16	2·97	9·19	44 2	"	67954	Fat slightly low, pass as doubtful.
....	1 0282	12·22	3 05	9 17	44 0	"	67955	Genuine.
....	1 0248	14 34	5 33	9 01	43 0	"	67956	"
.. . .	1 0267	14 44	5 43	9 01	42 6	"	67964	"
. ...	1 0314	12 47	2 78	9 69	43 3	"	69104	Fat too low. Adulterated.
J. J. COSTIGAN, ACTING INSPECTOR.								
....	1 0308	13 33	4 11	9 22	43 0	Clean.	57936	Genuine.
....	1 0277	11 15	3 21	7 99	40 1	"	57937	Non-fat solids slightly low. Doubtful.
....	1 0316	12 74	3 59	9 15	44 1	"	57938	Genuine.
... .	1 0315	13 10	4 03	9 07	43 3	"	57939	"

*Immersion Refractometer reading on Milk Serum at 20° C.
†Received in condition unfit for analysis.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF EASTERN TOWNSHIPS—				
1915.							
May 26	Milk.....	57960	Alcide Goudreau, Magog.	1 qt..	5	.....	....
" 26	"	57961	Henri Chagnon, Magog ..	1 " ..	5	....	.. ..
" 27	"	57962	L. B. Duquette, Megantic.	1 " ..	6	.....	.....
" 27	"	57963	Alphonse Boyer, Megantic.	1 " ..	6	....	.....
" 27	"	57964	Auguste Duquette, Megantic.	1 " ..	6	.....	... .
" 27	"	57965	G. M. McClure, Megantic.	1 " ..	6	.....	Adolphe Lemay, Megantic.
			DISTRICT OF VALLEYFIELD—				
June 10	Milk.....	58178	O. Robert, Farnham....	1 qt..	6	.....	....
" 10	"	58179	A. D. Labrecque, Farnham.	1 " ..	6	.....	.....
" 10	"	58180	Noah Chevalier, Farnham.	1 " ..	6	.....	.....
" 10	"	58181	J. Molson, Farnham....	1 " ..	6	.....	....
" 17	"	58182	Z. Belisle, Longueuil.....	1 " ..	8	.....	....
" 17	"	58183	A. Trudeau, Longueuil...	1 " ..	8	....	....
" 17	"	58184	N. Aubin, Longueuil.....	1 " ..	8	.....	.....
" 17	"	58185	J. Lajeunness, Longueuil.	1 " ..	8	....	.....
May 19	"	58176	John A. McDonald, Alexandria.	1 " ..	5	....	....
" 19	"	58177	Geo. A. Charlebois, Alexandria.	1 " ..	5	....	.....
			DISTRICT OF MONTREAL—				
May 19	Milk.....	67191	R. Blain, 1055 Lajoie st., Outremont.	1 qt..	8	....	A. C. Struthers...
" 19	"	67192	John McEwen, 2826 Hutcheson st., Outremont.	1 "	8	Vendor.	.....
" 19	"	67193	Jos. Deneau, 1641 Van Horne ave., Outremont.	1 "	8	.....	E. H. Drolet .....
" 19	"	67194	A. Normandeau, 1199 Van Horne ave., Outremont.	1 "	8	.....	J. J. Joubert.....
" 19	"	67195	L. J. Chalifou, 785 Bloomfield ave., Outremont.	1 "	9	... .	Mr. Quenville.....
" 20	"	67196	Westminster Prov. Stores, 58 Westminster ave., Montreal W.	1 "	10	....	C. G. Hall..... ..

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.						No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. at 20° C	Total Solids.	Fat.	Non fat. Solids.	R.*	Cleanliness.		
Concluded.								
		p. c.	p. c.	p. c.				
....	1·0312	12·18	3·34	8·84	43·2	Clean.	57960	Genuine.
....	1·0310	12·93	3·74	9·19	43·5	"	57961	"
....	1·0281	12·30	3·46	8·84	42·4	"	57962	"
....	1·0301	13·56	4·43	9·13	44·6	"	57963	"
....	1·0306	12·95	3·73	9·22	43·9	"	57964	"
....	1·0310	12·67	2·97	9·10	44·0	"	57965	Fat slightly low. Pass as doubtful.
J. J. COSTIGAN, ACTING INSPECTOR.								
....	1·0315	12·72	3·45	9·27	43·6	Clean.	58178	Genuine.
....	1·0307	13·27	3·95	9·32	44·4	"	58179	"
....	1·0283	13·20	4·24	8·96	43·4	"	58180	"
... .	1·0287	12·44	3·66	8·78	42·0	"	58181	"
....	1·0307	11·82	2·96	8·86	41·8	"	58182	Fat slightly low. Pass as doubtful.
... ...	1·0307	12·37	3·30	9·07	42·4	"	58183	Genuine.
... .	1·0311	13·06	3·99	9·07	42·8	"	58184	"
....	1·0305	12·31	3·38	8·93	43·0	"	58185	"
....	1·0320	11·56	2·55	9·01	43·0	"	58176	Fat too low. Adulterated.
....	1·0320	12·65	3·42	9·23	43·0	"	58177	Genuine.
D. J. KEARNEY, INSPECTOR.								
....	1·0314	12·74	3·64	9·10	42·5	Clean.	67191	Genuine.
... ...	1·0308	12·47	3·40	9·07	43·3	"	67192	"
....	1·0304	12·60	3·46	9·14	43·6	"	67193	"
.. ..	1·0305	12·90	3·73	9·17	43·9	"	67194	"
....	1·0311	12·64	3·46	9·18	44·0	"	67195	"
. ...	1·0307	13·07	3·97	9·10	43·0	"	67196	"

* Immersion Refractometer reading on milk serum at 20° C.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF MONTREAL—
1915.							
May 20	Milk.....	67197	A. E. Collins, 44 Westminster ave., Montreal W.	1 qt..	9	.....	W. H. Bradley....
" 20	"	67198	Limoges Bros., 2000 Hutcheson st., Outremont.	1 "	8	.....	Mr. Lemire .....
" 20	"	67199	A. Gadbois, 2298 Hutcheson st., Outremont.	1 "	6	.....	H. Lecavalier ....
" 20	"	67200	P. Clarest, 1150 Lajoie st., Outremont.	1 "	8	.....	Hydreine Pure Milk Co.
							DISTRICT OF OTTAWA—
April 22	Milk....	63613	Beckwith Dairy, Smith's Falls.	1 qt..	10	Vendors..... ..	.....
" 22	"	63614	Rideau Dairy, Smith's Falls.	1 "	10	"	....
" 22	"	63615	J. E. Edmunds, Smith's Falls.	1 "	10	Vendor	.....
" 24	"	63616	W. A. Gogo, Morrisburg.	1 "	10	"	.....
" 24	"	63617	S. J. Casselman, Morrisburg.	1 "	10	"	.....
" 24	"	63619	James McKenzie, Morrisburg.	1 "	10	"	....
" 24	"	63620	M. L. Casselman, Morrisburg.	1 "	10	"	.....
" 26	"	63622	S. Holmes, Renfrew.....	1 "	10	"	.....
" 27	"	63623	M. J. O'Brien, Renfrew..	1 "	10	"	....
" 27	"	63626	Jas. Shields, Renfrew....	1 "	10	"	....
							DISTRICT OF KINGSTON—
Apr. 26	Milk.....	66549	Wm. Simms, Bath Road.	1 qt...	7	Vendor	. .....
" 27	"	66550	Fred Lovelace, Yarker...	1 " ..	5	"	.. . .
" 27	"	66551	Manson Lee, Yarker.....	1 " ..	5	"	....
" 27	"	66552	J. S Brown, Yarker.....	1 " ..	5	"	....
" 27	"	66553	John Emberly, Yarker...	1 " ..	5	"	. . ..
" 27	"	66554	R. Cure, Yarker.....	1 " ..	5	"	.. . .
" 27	"	66555	George Lee, Yarker	1 " .	5	"	....
" 27	"	66556	James Warner, Yarker..	1 " ..	5	"	....
" 27	"	66557	Damon Carroll, Yarker...	1 " ..	5	"	. ...
" 27	" . ..	66558	Joman Silver, Yarker....	1 " ..	5	"	.....

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.						No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. at 20° C.	Total Solids.	Fat.	Non-fat Solids.	R.*	Cleanliness.		
Concluded.								
		p. c.	p. c.	p. c.				
.. ..	1·0287	14·37	5·64	8·73	42·8	Clean.	67197	Genuine.
....	1·0323	12·00	2·76	9·24	43·2	"	67198	Fat too low. Adulterated.
....	1·0248	18·27	9·93	8·34	41·8	"	67199	Genuine.
....	1·0315	12·70	3·44	9·26	42·0	"	67200	"
J. A. RICKEY, INSPECTOR.								
....	1·0302	11·66	3·17	8·49	42·2	Clean.	63613	Genuine.
....	1·0305	11·45	3·99	8·46	42·0	"	63614	"
....	1·0309	11·50	2·91	8·59	42·7	"	63615	Fat slightly low. Pass as doubtful.
.. ..	1·0304	12·16	3·56	8·60	43·2	"	63616	Genuine.
....	1·0312	11·71	2·99	8·72	42·7	"	63617	Fat slightly low. Pass as doubtful.
....	1·0277	14·18	5·94	8·24	42·4	"	63619	Genuine.
....	1·0302	12·02	3·38	8·64	42·7	"	63620	"
....	1·0290	12·07	3·70	8·37	42·4	"	63622	"
....	1·0293	13·16	4·58	8·58	42·7	"	63623	"
....	1·0303	12·27	3·60	8·67	43·3	"	63626	"
JAMES HOGAN, INSPECTOR.								
.....	1·0280	11·00	2·87	8·13	40·2	Clean	66549	Fat too low; also non fat solids. Adulterated.
. .. .	1·0365	12·70	2·44	9·26	45·0	"	66550	Fat too low. Adulterated.
....	1·0315	12·58	3·61	8·97	43·6	"	66551	Genuine.
... .	1·0314	13·18	4·14	9·04	43·7	"	66552	"
....	1·0313	12·95	3·87	9·08	44·0	"	66553	"
....	1·0282	13·98	5·67	8·31	42·2	"	66554	"
....	1·0336	12·59	3·26	9·33	43·0	"	66555	"
....	1·0312	12·33	3·47	8·86	43·5	"	66556	"
.. ..	1·0320	13·51	4·03	9·48	44·8	"	66557	"
....	1·0341	10·67	1·54	9·13	43·7	"	66558	Fat much too low. Adulterated.

* Immersion refractometer reading on milk serum at 20° C.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF TORONTO—
1915.							
May 11	Milk.....	67039	W. Lewis, Stouffville.....	1 qt..	7	Farmers, Stouffville.	....
" 11	"	67040	Ira Russell, Stouffville...	1 " ..	7	D. H. Russell, Stouffville.	.....
" 11	"	67041	H. Lilley, Markham.....	1 " ..	6	Vendor	.....
" 12	"	67042	W. C. Hogg, Uxbridge...	1 " ..	7	"	.....
" 12	"	67043	N. R. Phair, Uxbridge...	1 " ..	7	"	.....
" 12	"	67044	Chas. McArthur, Port Perry.	1 " ..	6	George Lyle, Port Perry.	... .
" 13	"	67045	J. & A. Jardine, Beaverton.	1 " ..	6	Vendor.....	.....
" 14	"	67046	H. Fallowfield, Waubaushene.	1 " ..	6	"	.....
" 15	"	67047	H. Hilcox & Sons, Midland	1 " ..	6	"	.....
15	"	67048	C. A. Scott	1 " ..	8	"	.....
" 14	"	67061	J. B. Jamieson, Orillia...	1 " ..	8	Vendor and neighbour.	....
							DISTRICT OF HAMILTON—
April 27	Milk.....	66968	W. B. Mitchell, Fergus..	1 qt .	6	Vendor	.....
" 27	"	66969	A. Howalt, Fergus.....	1 " .	6	"	....
" 27	"	66970	T. H. Brown, Palmerston	1 " .	8	"	....
" 28	"	66971	Geo. Beley, Mt. Forest...	1 " .	7	"	.....
" 28	"	66972	E. C. Callaway, Mt. Forest	1 " .	8	"	....
" 28	"	66973	Geo. Davidson, Mt. Forest	1 " .	7	"	.....
" 29	"	66974	N. Oppertshauser, Mildmay.	1 " .	7	Vendor and a neighbour.	....
" 30	"	66975	G. W. Vandervet, Chasley	2 pts.	7	" "	.....
May 4	"	66976	J. W. Wilson, Oakville...	1 qt .	8	John Wilson, Jr., Oakville.	....
" 4	"	66977	S. G. Powley, Oakville...	1 " .	8	Biger Bros. & G. H. King, Oakville.	....
							DISTRICT OF WINDSOR—
May 4	Milk.....	54607	Thos. Bolton, R.R. No. 2, Mandamin.	1 qt .	Nil.	Vendor	
" 4	"	54608	Ph. Roberts, Sarnia Tunnell.	3 Bots	"	"	
" 4	"	54609	Josiah Smith, Sarnia	3 "	5	"	
" 4	"	54610	R. Kemleer, R.R. No. 1, Sarnia.	3 "	5	....	

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.						No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. at 20° C.	Total solids.	Fat.	Non-fat Solids.	R.*	Cleanliness.		
H. J. DAGER, INSPECTOR.								
		p.c.	p.c.	p.c.				
.....	1·0305	11·62	2·59	9·03	42·8	Clean.	67039	Fat too low. Adulterated.
.....	1·0307	11·69	2·46	9·23	43·0	"	67040	" "
.....	1·0280	11·12	2·87	8·25	40·0	"	67041	Fat too low; also non-fat solids. Doubtful.
.....	1·0331	11·76	2·30	9·46	43·8	"	67042	Fat too low. Adulterated.
.....	1·0318	12·01	2·59	9·42	43·4	"	67043	" "
.....	1·0303	11·88	2·61	9·27	42·5	"	67044	" "
.....	1·0310	11·62	2·87	8·75	42·9	"	67045	" Doubtful.
.....	1·0333	12·68	3·22	9·46	43·7	"	67046	Genuine.
.....	1·0331	13·47	3·87	9·60	44·6	"	67047	"
.....	1·0262	11·76	3·99	7·77	38·9	"	67048	Non-fat solids low. Doubtful.
.....	1·0289	12·74	3·47	9·27	43·7	"	67061	Genuine.
H. J. DAGER, ACTING INSPECTOR.								
.....	1·0306	12·96	4·13	8·83	43·3	Clean.	66968	Genuine.
.....	1·0315	12·83	3·87	8·96	43·0	"	66969	"
.....	1·0312	11·99	3·37	8·62	42·3	"	66970	"
.....	1·0327	13·36	4·02	9·34	45·0	"	66971	"
.....	1·0298	11·85	3·28	8·57	42·7	"	66972	"
.....	1·0293	11·09	2·95	8·14	40·6	"	66973	Fat slightly low; also non-fat solids, doubtful.
.....	1·0274	9·98	2·41	7·57	38·4	"	66974	Fat too low; also non-fat solids adulterated.
.....	1·0310	11·81	3·11	8·70	41·4	"	66975	Genuine.
.....	1·0321	12·61	3·48	9·13	43·3	"	66976	"
.....	1·0315	11·79	3·00	8·79	42·0	"	66977	"
JOHN TALBOT, INSPECTOR.								
.....	1·0315	13·71	4·51	9·20	44·0	Clean.	54087	Genuine.
.....	1·0306	12·67	3·78	8·89	43·0	"	54088	"
.....	1·0327	13·21	3·81	9·40	43·2	"	54089	"
.....	1·0316	12·05	3·15	8·90	43·3	"	54090	"

* Immersion Refractometer reading on Milk Serum at 20° C.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF WINDSOR—							
1915.							
May 4	Milk.....	54611	R. B. Bauthamer, Sarnia.	3 bots.	5	John McGuiness, Field & Parson, Sarnia Genl, Delivery.	.....
" 4	"	54612	A. Hughes, R.R. No. 2, Sarnia.	3 "	Nil.	Vendor	.....
" 5	"	54616	D. Evans, Petrolia.....	3 "	6	"	.....
" 5	"	54617	F. Stinson, Petrolia	3 "	5	.....	Mr. Prudine & Mr. Irwin, Petrolia.
" 5	"	54618	R. H. Drope, Petrolia....	3 "	Nil.	Vendor.....	.....
DISTRICT OF MANITOBA—							
May 19	Milk	61301	M. L. McDonald, Minnedota.	1 qt.	10	Vendor.....	....
" 19	"	61302	Rex Dyer, Minnedosa...	1 "	10	"	.....
" 19	"	61303	C. E. Lawson, Minnedosa	1 "	10	"	.....
" 21	"	61304	Crescent Creamery Co., Winnipeg.	1 "	10	....	.....
" 21	"	61305	Sturgeon Creek Dairy, St. James.	1 "	10	.....	....
" 21	"	61306	E. Goodchild, St. James.	1 "	10	....	.....
" 26	"	61307	J. E. Redmond, Souris..	1 "	nil.	.....	.....
" 27	"	61308	H. Nesbitt, " ..	1 "	10	.....	... .
" 27	"	61309	J. T. English, " ..	1 "	nil.	.....	....
" 27	"	61310	James McCulloch, " ..	1 "	"	.....	....
" 27	"	61323	J. E. Redmond. " ..	1 "	10	....	....
DISTRICT OF SASKATCHEWAN—							
April 20	Milk.. ...	66360	S. G. Johnston, Gull Lake	1 qt.	10	Vendor.	.....
" 29	"	66366	P. C. Colquhaun, Maple Creek.	1 "	10	"	.....
" 29	"	66367	E. J. Ferraley, Maple Creek.	1 "	10	"	....
May 4	"	66378	W. H. Keys, Pense....	1 "	10	"	.....
" 4	"	66379	E. C. Dyers, "	1 "	10	"	... .
" 4	"	66380	W. Dawson, "	1 "	10	"	....
" 5	"	66384	M. Wilkinson, Lumsden..	1 "	10	"	.. ..

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.						No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. at 20° C.	Total Solids.	Fat.	Non-fat Solids.	R*	Cleanliness.		
Concluded.								
		p.c.	p.c.	p.c.				
....	1·0311	12·93	3·88	9·05	42·5	Clean ..	54611	Genuine.
....	1·0288	15·01	5·69	9·32	44·0	" .	54612	"
....	1·0322	12·42	3·36	9·06	44·2	" ..	54616	"
.....	1 0321	12·27	3·22	9 05	43 6	" ..	54617	"
....	1·0299	13·35	4·60	8·75	42 5	" ..	54618	"
A. C. LARIVIERE, INSPECTOR.								
....	1·0305	12·27	3 53	8 74	.....	Clean ..	61301	Genuine
....	1·0321	12·49	3·71	8 78	....	" .	61302	"
....	1 0308	12·17	3·40	8·77	...	" ..	61303	"
.....	1 0297	12·28	3 76	8 52	...	" ..	61304	"
....	1·0297	11·93	3 12	8·81	.....	" ..	61305	"
....	1·0290	13 04	4·07	8·97	. ..	" ..	61306	"
....	1 0296	13·08	4 12	8 96	..	" ..	61307	"
... .	1·0310	13 08	3 83	9 25	...	" ..	61308	"
....	1 0303	12 75	3 74	9 01		" .	61309	"
....	1·0307	13 08	3 90	9·18	..	" ..	61310	"
....	1 0288	13 83	4 10	9·73	...	" .	61323	"
L. H. HALL, INSPECTOR.								
... .	1 0318	12 57	3 86	9 21	43 2	Clean ..	66365	Genuine
....	1 0268	13 68	5 33	8 35	41 3	"	66366	"
. .....	1 0303	14 15	5 08	9 07	41 5	" ..	66367	"
....	1 0324	12·93	3 66	9 27	43 8	" ..	66378	"
....	1 0334	12 71	3 29	9 42	43 5	" ..	66379	"
....	1 0307	11 94	3 07	8 86	43 2	" ..	66380	"
....	1 0321	12 22	3 28	8 97	43 2	" ..	66384	"

* Immersion Refractometer reading on Milk Serum at 20°C.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF SASKATCHEWAN—							
1915.							
May 5	Milk.....	66385	F. H. Cochrane, Lumsden	1 qt..	10	Vendor.....	.....
" 7	"	66390	J. E. Steele, Drinkwater.	1 "	10	"	.....
" 7	"	66391	R. McConnell, Drinkwater.	1 "	10	"	.....
DISTRICT OF ALBERTA—							
June 9	Milk.....	52172	John Whitney, Langdon.	1 qt..	10	Vendor.....	.....
" 10	"	52173	Katherine Stephens.....	1 " .	10	"	.....
" 10	"	52174	Hugh Williams, Strathmore.	1 " ..	10	"	.....
" 11	"	52175	Jos. Botton, Strathmore..	1 " ..	10	"	.....
" 12	"	52176	C. A. Millie, Gleichen. ..	1 " ..	10	"	.....
" 12	"	52177	Wm. Walsh, Gleichen. ..	1 " ..	10	"	.....
" 12	"	52178	Mrs. W. R. Payne, Gleichen	1 " ..	10	"	.....
" 14	"	52179	Geo. Yates, Bassano. ...	1 " ..	10	"	.....
" 14	"	52180	Albert Davies, Brooks....	1 " ..	10	"	.....
" 15	"	52181	Norman Stafford, Brooks.	1 " ..	10	"	.....
DISTRICT OF ROCKY MOUNTAINS—							
April 26	Milk	61796	A. Schnaebele, Trail.	qt.	10	Vendor.....	.....
" 26	"	61797	J. Quinstrom, Trail.....	1 " ..	10	"	.....
" 26	"	61798	J. Hintz, Trail	1 " ..	10	"	.....
May 20	"	61808	Atchisons Dairy, Cranbrook.	1 " ..	10	"	.....
" 20	"	61809	T. E. Austin, Cranbrook	1 " ..	10	"	.....
" 20	"	61810	W. B. Bardgeth, Cranbrook.	1 " ..	10	"	.....
June 10	"	61825	R. A. Upper, Revelstoke.	1 " ..	10	"	.....
" 10	"	61826	C. Granstrom, Rivelstoke.	1 " ..	10	"	.....
" 10	"	61827	A. G. Carlson, Rivelstoke.	1 " ..	10	"	.....

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion)	Results of Anaylsis.						No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. at 20°C.	Total Solids.	Fat.	Non fat Solids.	R*	Cleanliness.		
Concluded.								
		p. c.	p. c.	p. c.				
....	1·0266	14·47	6·30	8·17	41·1	Clean...	66385	Genuine.
.....	1·0318	12·22	3·03	9·19	41·4	" ..	66390	
....	1·0294	12·59	3·82	8·77	40·7	" ..	66391	"
A. W. R. MARKLEY, INSPECTOR.								
Sold in sealed bottles.	1·0307	11·47	3·48	7·99	40·1	.....	52172	Non-fat solids slightly low. Pass as doubtful.
" bulk	1·0344	13·71	3·98	9·73	.....	.....	52173	Genuine.
" sealed bottles.	1·0311	13·44	4·44	9·00	. . .	....	52174	"
" "	1·0327	12·38	3·31	9·07	43·3	.....	52175	"
" bulk.....	1·0315	12·01	3·29	8·72	43·3	.....	52176	"
" bulk & bottles.	1·0304	13·09	4·27	8·82		....	52177	"
" " .	1·0332	13·27	3·91	9·36		....	52178	"
" "	1·0318	13·18	3·98	9·20			52179	"
" bulk.....	1·0332	9·30	0·74	8·56	41·2		52180	Fat very low. Adulterated
" sealed bottles.	1·0329	14·40	4·77	9·63			52181	Genuine
THOS. PARKER, INSPECTOR.								
	1·0249	17·43	8·77	8·66	43·1		61798	Genuine
	1·0313	13·26	4·12	9·14	43·8		61797	"
	1·0296	12·47	3·89	8·58	42·2		61799	"
	1·0315	14·40	5·46	8·94			61800	"
	1·0320	13·67	4·55	9·12			61801	"
	1·0325	12·94	4·28	8·66			61819	"
	1·0321	12·68	3·96	8·72			61820	"
	1·0313	12·49	3·46	9·03			61821	"
	1·0306	12·79	3·67	9·12			61822	"

*Immersion Refractometer reading on Milk Serum at 2° C.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF VANCOUVER—							
1915.							
June 2	Milk.. ...	55285	Eburne Dairy, Eburne....	1 qt..	10	Vendor	....
" 2	"	55286	Eburne Creamery, Eburne.	1 " ..	10	D. McKay, Lulu Island.	.....
" 2	"	55287	J. M. Steves, Steveston..	1 " ..	10	Vendor	.. ..
" 4	"	55288	Chas. Hawthorne, Chilliwack.	1 " ..	10	"	.....
" 4	"	55289	Chilliwack Creamery Chilliwack.	1 " ..	10	"	. ...
" 4	"	55290	Chas. Robinson. Mission .	1 " ..	10	"	.....
" 4	"	55291	Mrs. H. Windebank, Mission.	1 " ..	10	"	....
" 5	"	55292	A. Davie, Ladner.....	1 " ..	10	"	.....
" 7	"	55293	Port Coquitlam Dairy Co., Port Coquitlam.	1 " ..	10	Minnekadda Ranch, Port Coquitlam.	....
" 9	"	55294	H. Bradshaw, White Rock.	1 " ..	10	Vendor	.....
DISTRICT OF VICTORIA—							
May 19	Milk.....	66701	James Watson, Harward, Nanaimo.	1 qt..	10	....	....
" 19	"	66702	Wm. Reynolds, Protection Island, Nanaimo.	1 " ..	10	....	... .
" 19	"	66703	J. J. Dickinson, Harward, Nanaimo.	1 " ..	10	....	....
" 19	"	66704	John Watson, Harward, Nanaimo.	1 " ..	10	.....	.....
" 19	"	66705	Geo. Rains, Delta, Cranberry District, V.I.	1 " ..	10	.. ..	....
" 19	"	66706	T. L. Brown, East Wellington, Mountain Dist.	1 " ..	10	... .	.....
" 20	"	66707	Louis Grouhel, Ladysmith.	1 " ..	10	....	....
" 20	"	66708	W. A. Gosier, Ladysmith.	1 " ..	10	.....	.....
" 20	"	66709	John Ramont, Duncans, V.I.	1 " ..	10	.. . .	....

SESSIONAL PAPER No. 14

MILK.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.						No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. at 20° C.	Total Solids.	Fat.	Non-fat Solids.	R.*	Cleanliness.		
E. J. MORGAN, INSPECTOR.		p. c.	p. c.	p. c.				
	1·0312	12·34	3·61	8·73			55285	Genuine.
	1·0295	11·42	3·23	8·19	40·0		55286	Non-fat solids low. Doubtful.
	1·0327	12·21	2·92	9·29			55287	Fat slightly low. Pass as doubtful.
	1·0317	13·50	4·33	9·17			55288	Genuine.
	1·0313	12·90	3·86	9·04			55289	"
	1·0296	13 13	4·35	8·78			55290	"
	1·0327	14·24	4·58	9·66			55291	"
	1·0315	13·00	3 83	9·17			55292	"
	1 0302	11 71	3·57	8 14	40·2		55293	Non-fat solids low. Doubtful.
	1·0325	12·68	3·71	8·97			55294	Genuine.
D. O'SULLIVAN, INSPECTOR.								
	1 0257	18 29	9·85	8 44			66701	Genuine.
	1·0334	11 50	2 48	9 02	42 0		66702	Fat low. Adulterated
	1 0315	12 76	3 89	8 87			66703	Genuine.
	1 0277	14 33	5 96	8 37			66704	"
	1 0323	12 70	3 91	8 79			66705	"
	1 0306	12 71	3 99	8 72			66706	"
	1·0280	10 49	2 67	7 82	38 3		66707	Solids too low. Adulterated
	1 0301	11 70	3 28	8 42	41 1		66708	Genuine
	1 0316	12 40	3 68	8 72	41 5		66709	"

* Immersion Refractometer reading on Milk Serum at 20° C.

APPENDIX J.

BULLETIN No. 319—CHOP FEED.

OTTAWA, August 7, 1915.

J. U. VINCENT, ESQ.,
Deputy Minister Inland Revenue,

SIR,—I beg to hand you a report upon one hundred and forty nine (149) samples purchased as Chop Feed during January, February and March of this year.

With this name (Chop Feed) I have identified the article sold as Moulée, Provender, Provende, grains concassé, but it is to be noted that *Moulée* is the only one of these terms which has legal recognition as a synonym for Chop Feed.

The legal standard for Chop Feed is as follows:

Protein, at least 10 per cent.
Fat, at least 2 per cent.
Fibre, at most 10 per cent.

The Act, however, provides that a deficiency of not more than one per cent in protein or fat; or an excess of not more than two per cent of fibre shall not be held as evidence of fraudulent intent, provided that the total value of the article in nutritive material is substantially equivalent to the standard value.

By an Order in Council of 3rd May, 1911, it is further required that Chop Feed shall be free from vital seeds of noxious weeds.

As judged by these requirements I find the samples now reported to be as follows:

	Samples.
Meet standard (or guaranteed) value	114
Passed, as reasonably close to this standard	11
Adulterated, as low in value	24
Total	149

The above classification has regard only to the nutritive or feeding value of the article.

Twenty-four samples are found to contain vital weed seeds in excess. With one exception, these samples possess satisfactory value as nutrients. They are, nevertheless, adulterated in a legal sense, as failing to meet the requirements of the Order in Council above referred to.

There can be no doubt that the spread of noxious weeds, through preventable distribution of their vital seeds, is a great evil, and calls for every attention on the part of those departments of the government which are entrusted with the administration of Acts in its regard. The Department of Agriculture, in charge of the Seed Control Act, has listed those weed species which are to be regarded as noxious and has established the following quantitative limits:—

(*a*) For seeds of oats, barley, wheat, or other seeds similar in size, one weed seed in one pound avoirdupois.

(*b*) For seeds of flax, millet, or other seeds similar in size, one weed seed in one ounce avoirdupois.

(*c*) For seed of white clover and grasses, five weed seeds in one ounce avoirdupois.

In this connection, I may quote as follows, from the text of Bulletin No. 254 of this department:

"It is to be kept in mind that these regulations apply to seeds intended to be applied directly to the land. In the case of cattle feeds, the vital weed seeds are presumably applied to the soil only after they have passed through the alimentary tract of the animals to which they are fed, and it is reasonable to suppose that their vitality will be greatly affected in the processes of digestion.

"The only experimental data available to me directed to the determination of the vitality of seeds which have been fed to animals is contained in a report published as Bulletin No. 128 of the Maryland Agricultural Experiment Station, College Park, Md., in June, 1908.

This valuable study of the question is briefly presented in the following summary:—

SUMMARY.

The above results were obtained through experiments concerning the vitality of weed seeds under the influence of their distribution by manure along two different lines: namely, the effect of fermenting manure on the vitality of weed seeds (seeds introduced through bedding) and the effect upon the vitality of weed seeds after passing through the digestive channel of domestic animals (seeds fed to animals).

The first part of the experiment was accomplished so as to cover the condition where manure remains for six months in a barnyard, pound or pile. The second covered conditions where the manure remained on piles for a short while, as when shipped by carload lots from cities.

From the above results the following conclusions seem justified:—

1st. When manure is allowed to ferment in piles for 6 months no danger of distributing weed seeds is incurred.

2nd. When manure is allowed to remain in piles and undergoing partial fermentation, little danger of distribution is incurred.

The second part of the experiment which dealt with the effect upon the vitality of weed seeds after passing through the digestive channels of domestic animals was accomplished so as to bring about three existing conditions:—

1st. Manure hauled direct from the stable to the field as a top dressing and left there exposed to the washing of the rains.

2nd. Where the manure is hauled directly from the stable to the field where it is immediately ploughed under.

3rd. Where the domestic animals are allowed to run in pasture and the droppings are allowed to remain wherever they chance to fall.

From the above tables in the latter part, the following results were obtained:—

1st. Where the manure was hauled directly from the stable as a top dressing an average of only 12·8 per cent of the seeds fed to animals germinated.

2nd. Where the manure was hauled directly from the stable upon the land and ploughed under, 2·3 per cent of the seeds fed to animals came up.

3rd. Where the droppings remained on the pasture fields unadulterated as they fell, an average of only 3·1 per cent of the seeds fed to animals germinated."

I have the following expression of opinion from G. H. Clark, Esq., seed commissioner of the Department of Agriculture, Canada:—

"There has been quite a large number of samples of mill feeds analysed in our seed laboratory covering the period of six years, and from the results of this work we have formed the opinion that the proportion of whole weed seeds contained in the feeding stuff depends largely on the care or lack of care on the part of the manufacturer.

"Weed seeds in seed grain are probably five times more dangerous to agriculture than are weed seeds in mill feeds, for the reason that only a small per cent of the weed seeds fed to stock ultimately are put on the land in a viable condition.

"For the present, I think I cannot do more than to express the opinion that if you were to tolerate five noxious weed seeds per pound of bran, shorts or chop feed before you consider their character affected as being free from the seeds of the said weeds within the meaning of your regulations; then field agriculture would be as well safeguarded as it now is under the regulations that are applied for a similar purpose under the Seed Control Act."

The department has not, up to the present time, fixed any legal limit for weed seeds, in consequence of which I have not judged as adulterated any of the samples herein reported. I have, however, ventured to describe weed seeds as in excess when present to the extent of 3 seeds per ounce, practically 50 seeds per pound. I am sure that this is a very liberal interpretation of the regulations; but until some departmental action is taken to fix numerical limits beyond which noxious weed seeds shall be recognized as illegal, nothing more can be done.

It will be noted that the article *chop feed,* varies greatly in its feeding value. While the protein minimum fixed by law is 10 per cent, 55 samples show more than 12 per cent protein; 36 samples more than 13 per cent; 20 samples more than 14 per cent and 17 samples more than 15 per cent protein while 3 samples show above 20 per cent. These last are usually chopped peas. It is a question whether or not the term chop-feed is not too comprehensive, and might not, with advantage to the buyer, and in justice to the miller, be more closely defined by recognition of sub-classes. It is quite evident, by the percentages of fibre found in some of these samples, that some millers take advantage of the excess value in protein and fat, to add valueless material (chaff or oat-hulls, etc.) to the feed. More than 15 per cent of crude fibre is found in 18 samples herein reported, while the legal maximum is 10 per cent.

These matters will be further considered; and it is hoped that recommendations for amendment of our standard may result from fuller experience and study of the subject.

Meantime, I beg to recommend publication of this report as Bulletin No. 319.

I have the honour to be, sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF NOVA SCOTIA—	
1915.							
March 8	Chop Feed...	64136	G. B. Shaffner & Co., Ltd., Halifax, N.S.	3 lb..	Nil.	Gunn & Co., Halifax, N.S.	Manufacturers..
" 9	"	64137	Gunn & Co., Ltd., Halifax, N.S.	3 " ..	"	Vendors.....	.....
" 9	"	64138	" " ..	3 " ..	"	"	.....
10	"	64139	Shand Bros., Windsor, N.S.	3 " ..	6	Lake of the Woods M. Co, Montreal.	Manufacturers..
" 10	"	64140	" " ..	3 " ..	6	T. H. Taylor Co., Chatham, Ont.	" ..
" 11	"	64141	Hants Co. Fruit & Product Co., Windsor, N.S.	3 " ..	Nil.	Chisholm M. Co., Toronto.	Smith Brokerage St. John, N.B.
" 12	"	64142	Lamont & Steadville, Kentville, N.S.	3 " ..	"	Can. Flour Mills, Chatham, Ont.	Manufacturers..
" 15	"	64143	H. S. Hall, Bridgewater, N.S.	3 " ..	5	Can. C. & F. Mills, Galt, Ont.	" ..
" 15	"	64144	C. M. Bent, Bridgewater, N.S.	3 " ..		Unknown.....	Unknown ... ..
						DISTRICT OF NEW BRUNSWICK—	
Feb. 10	Chop Feed...	59656	Steen Bros., St. John, N.B.	3 pgs.	10	Vendors	.....
" 11	"	59657	Maritime Corn Meal Mill, St. John, N.B.	3 "	Nil.	"	.....
" 11	"	59658	St. John Milling Co., St. John, N.B.	3 "	"	"	.....
" 10	"	59659	F. H. Everett, Fredericton.	3 "	10	Vendor	.....
" 19	"	59660	Johnston & Kitchen, Fredericton.	3 "	20	Quaker Oats Co., Peterboro.	.....
" 19	"	59661	G. W. Hodge, Fredericton.	3 "	15	Rob Roy Cereal Mills, Durham, Ont.	.....
" 22	"	59662	Meduxnakeag Roller Mills Woodstock, N.B.	3 "	15	Vendors.....	.....
" 24	"	59663	Napoleon Turcotte, Grand Falls, N.B.	3 "	15	Vendor	.....
March 2	" . ..	59664	Sussex Mercantile Co., Ltd., Sussex, N.B.	3 "	15	Ogilvie's, Ltd., Montreal.	....
" 3	"	59665	"	3 "	15	Quaker Oats Co., Peterboro.	....
" 3	" ...	65911	Fawcett Milling Co,, Moncton, N.B.	3 "	20	Vendors.	..... .

SESSIONAL PAPER No. 14

CHOP FEED.

Inspector's Report (Is not an expression of opinion.)	Results of Analysis. Protein.	Fat.	Fibre.	Vital Weed Seeds Per ounce.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH, INSPECTOR.						
	p. c.	p. c.	p. c.			
O. & C. chop. . . .	9·87	4·32	6·00	14 Lambs Quarters, 10 Black Bindweed, *3 Wild Oats, 1 Wild Mustard*, 1 Sunflower.	64136	Meets legal feed value. Noxious weed seeds in excess.
Pig chop.....	10·38	3·82	2·30	75 Lambs Quarters, 1 Black Bindweed, *2 Wild Mustard, 1 Hares-ear Mustard, 1 Campion.*	64137	" "
O. & C. chop.	10·05	4·40	5·45	1 Black Bindweed, 30 Lambs Quarters, 1 Pennycress, 1 Russian Pigweed, 1 Sunflower, *2 Hares-ear Mustard*	64138	Meets legal feed value.
C. O. B. chop.....	10·25	4 10	6·35	2 Black Bindweed, *1 Wild Oats.*	64139	"
Horse and cattle chop	10·63	3·76	4·25	None.....	64140	"
Corn, oat and barley	10·75	3·98	6 70	6 Black Bindweed, *1½ Wild Oats.*	64141	Meets legal feed value. Noxious weed seeds in excess.
B. O. C. ½ chop.....	11·19	3·38	5·05	*2 Wild Oats*..... ..	64142	Meets legal feed value.
B. O. C. chop. ..	10·50	3·04	4·55	4 Black Bindweed, *17 Wild Oats, 1 Wild Mustard*, 2 Lambs Quarters, 1 Hedysarum.	64143	Meets legal feed value Noxious weed seeds in excess.
....	10·02	3·82	9·70	None....	64144	Meets legal feed value.
JOHN C. FERGUSON, INSPECTOR.						
Argentine corn. ...	10·19	4·84	3·05	*2 Wild Oats*..	59856	Meets legal feed value.
Cracked corn and oats.	10·50	4·72	6·45	None	59857	"
" ..	10·57	4·48	6·80	*5 Wild Oats*, 2 Black Bindweed.	59858	Meets legal feed value. Noxious weed seeds in excess.
.. ..	10·38	4·82	8 10	1 Spurrey, 2 Smartweed, 2 Tartary wheat.	59859	Meets legal feed value.
Banner, Claim Protein 8 5, Fat 3 5, Fibre 9 0.	9 94	3 56	6 70	None	59860	and claim.
Chieftain Brand, Claim Protein 6 65, Fat 5·41, Fibre 13 33	8 25	2 90	11 47	"	59861	Meets claim, except in fat. Below claim for legal chop. Adulterated
Oats, wheat, etc.	10 57	3 92	9 00	"	59862	Meets legal feed value.
Oats, barley and buckwheat.	9 56	3 62	9 20	67 Spurrey, *1 Cowpea*	59863	"
Hercules Brand	10 57	3 76	10 15	4 Lambs Quarters, 4 Black Bindweed, 1 Sunflower, *2 Wild Oats, 2 Wild Mustard, 1 Hares-ear Mustard*	59864	Meets legal feed value. Noxious weed seeds in excess.
Schumacher Brand, Claim Protein 10 5, Fat 4 0, Fibre 10 5	9 87	3 30	8 58	4 Lambs Quarters, 1 Pennycress	59865	Meets legal feed value.
Golden Star Brand	9 81	3 84	3 62	None	59911	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF QUEBEC CITY.—							
1915.							
Jan. 29	Cracked Oats.	60789	J. B. Renaud & Cie, Quebec.	5 lbs..	...	Vendors	....
" 29	" Corn.	60790	" " ..	5 "	....	"	....
" 29	Oatmeal Feed.	60791	" " ..	5 "	....	Quebec Oats Co..	.....
" 29	Ground Oats..	60792	" " ..	5 "	...	Vendor	....
" 29	" ..	60793	" " ..	5 "	....	John Mackay, Bowmanville.	... .
" 29	Blé d'Inde Casse.	60794	W. Carrier & Cie, Quebec.	5 "	....	Vendors.	.....
" 29	Oat Meal Feed	60795	" " ..	5 "	....	Ogilvie, F. M., Co.	.. ..
" 29	Blé d'Inde Casse.	60796	P. J. Busiere & Cie, Quebec.	5 "	16	Vendors.....	.....
" 29	Moulé d'avoine	60797	" " ..	5 "	16	Lake of the Woods	.....
" 29	" d'Orge..	60798	" " ..	5 "	16	Macky, Ottawa...	....
DISTRICT OF QUEBEC PROVINCE.—							
Jan. 25	Moulé...	3757	Dodier & Crete, Levis....	3 lbs..	9	F. Guay, Levis. ..	.....
" 25	"	3759	" "	3 "	9	J. B. Renaud & Cie, Quebec.	.....
" 26	"	3764	G. & Ed. Couture, Levis..	3 "	10	Ogilvie Flour Mills	.....
" 27	"	3766	J. A. Gagnon & fils, Lewis.	3 "	9	J. B. Renaud & Cie, Quebec.	.....
Feb. 10	"	3791	Lacasse & Aude, St. Edward.	3 "	10	A. Lonchant, Traintod, Co. Dorchester.	....
Jan. 27	Gruaux.....	2742	Alp. Letourneau, St. Pierre.	3 "	18	....	Turcotte frère & Cie, Quebec.
" 28	Pois Concassé.	2744	L. Uger Benaier, Cap. St. Ignace.	3 "	18	....	J. B. Renaud & Cie, Quebec.
" 29	Gruaux Avoine	2745	Nap. Proulx, Montmagny.	3 "	25	Quaker Oats Co., Peterboro.	.....
" 30	Pois Concassé.	2746	Joseph Fournier, St. Thomas.	3 "	21	....	N. Rioux & Cie, Quebec.
Feb. 2	Blé d'Inde Casse.	56443	Pierre Lagois, St. Epiphaine.	3 "	12	....	T. Langlais, Fraserville.

SESSIONAL PAPER No. 14

CHOP FEED.

Inspector's Report. (Is not an expression of opinion.	Results of Analysis. Protein.	Fat.	Fibre.	Vital Weed Seeds per Ounce.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
F. X. W. E. BELAND, INSPECTOR.						
	p. c.	p. c.	p. c.			
.....	12·15	4·80	10·45	*26 Wild Oats, 13 Wild Mustard, 1 Ball Mustard, 13 Hares' Ear Mustard,* 5 Pennycress, 20 Lambs' Quarters, 25 Black Bindweed.	60789	Meets legal feed value, noxious weed seeds in excess.
.....	9 98	3·88	2·15	None.....	60790	Meets legal feed value.
. . ..	5·65	2·54	23 68	*2 Wild Mustard.*	60791	*Adulterated* under the Act.
....	11·95	4·62	9·75	10 Lambs' Quarters.....	60792	Meets legal feed value.
....	13·75	3·96	12 70	None.....	60793	Some excess fibre; otherwise good. Pass.
.. ..	9·60	3·80	2·20	"	60794	Meets legal feed value.
....	6·61	2·32	23 30	"	60795	*Adulterated.*
.....	9·40	3·85	2·05	"	60796	Meets legal feed value.
. . ..	10·05	1·84	15 00	"	60797	Excess fibre. *Adulterated.*
.....	14 05	3·32	9·75	"	60798	Meets legal feed value.
J. E. AUDET, T. GENDREAU, ALP. PELLETIER, TEMP. INSPECTORS.						
....	11·40	4 38	8 75	None.....	3757	Meets legal feed value.
....	6·22	2 20	22 15	"	3759	*Adulterated.*
....	8·10	1 60	0 35	"	3764	Low in protein. *Adulterated.*
....	9 55	3 88	1 45	"	3766	Meets legal feed value.
....	11·15	4 14	9 9.	"	3791	Meets legal feed value.
....	13 80	7·40	1 17	"	2742	Meets legal feed value.
.. . .	26 70	0 88	1 15	"	2744	Low in fat, but very high in protein. Pass, as compensated.
....	15 80	7 14	1 11	"	274	Meets legal feed value.
....	29 20	1 05	1 67	"	2746	Low in fat, but very high in protein. Pass, as compensated.
....	8 00	2 18	1 10	"	8044	Low in protein. Adulterated.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF THREE RIVERS—	
1915.							
Jan. 16	Moulee.....	3921	G. H. Read, St. Felix de Valois.	5 lb...	10	Ogilvie, F. M. Co , Montreal.	....
" 20	"	3922	J, E. Dufort, Joliet.....	4 " ..	10	Lake of the Woods Flour Mills Co.	.....
						DISTRICT OF EASTERN TOWNSHIPS—	
Feb. 9	Moulee. ...	1689	H. Roux & Fils, Danville.	3 lb...	10	Mount Royal Flour Mill ngCo., Montreal.	.....
" 11	Blédinde and Avoine.	1690	D. S. Bachand, Coaticook.	3 " ..	4	" " ..	.....
" 16	Moulee.....	1691	A. Milette, Windsor Mills	3 " ..	4	Ogilvie M. Co., Montreal.	....
" 16	"	1692	S. & W. Fortier, Sherbrooke.	3 " ..	5	" " ..	....
" 17	"	1693	A. W. Moore & Co., Magog.	3 " ..	5	Western Canada F. M. Co., Montreal.	....
" 18	Victor Feed..	1694	Neil Bros., Waterloo.. ..	3 " ..	5	Quaker Oats, Peterboro'.	... .
" 18	Avoine Moulee	1695	G. J. McGuire,.....	2 " ..	5	J. Labrecque, Waterloo, P.Q.	.....
" 18	Moulee.	1696	J. C. Robert, Granby ...	3 . ..	....	" " ..	....
Mch. 26	"	1697	Chs. G. Racicot, St. Hyacinthe.	3 " ..	5	Wm. Scott & Co., Ottawa.	....
" 26	"	1698	O. Gaucher, St. Hyacinthe	3 " ..	5	Reniere & Scott, St. Hyacinthe.	.....
						DISTRICT OF MONTREAL—	
Jan. 28	Moulee.....	62691	M. Gervais, 147 Mullarky ave., Verdun.	3 lb...	5	....	W. Lamarre & Co., Montreal.
Feb. 1	"	62692	P. Thibault, 473 Church ave., Verdun.	3 " ..	5	.....	" " ..
Mch. 19	"	61693	T. Dansereau & Co., 499 Charlevoix st., Montreal.	3 " ..	10	.....	Jos. Elie, Montreal.
" 19	"	62694	J. B. Bonhomme & Co., 811 Charlevoix st., Montreal	3 " ..	10	.....	W. Lamarre & Co., Montreal.
" 19	"	62695	Laporte & Frere, 49 St. Charles st., Montreal.	3 " ..	6	.....	Unknown.....
" 19	"	62696	A. Vachon, 593 Marie Anne st., Montreal.	3 " ..	6	....	F. Gobeille, Montreal.
" 20	"	62697	J. Mongeau, 826 Marie Anne st., Montreal.	3 " ..	6	....	" " :
" 20	"	62698	R. Corbeil, 146 Garnier st., Winnipeg.	3 " ..	9	....	" " ..
" 20	"	62699	A. Hetu & Co., 147 De-Laroche st., Montreal.	3 " ..	8	.....	" " ..
" 20	"	62700	A. Filatrault, 976 St. Andre st., Montreal.	3 " ..	5	....	" " ..

SESSIONAL PAPER No. 14

CHOP FEED.

Inspector's Report. (Is not an expression of opinion.	Results of Analysis. Protein.	Fat.	Fibre.	Vital Weed Seeds. per ounce.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
DR. V. P. LAVALLEE, INSPECTOR.						
....	16·35	3·98	5·75	None.	3921	Meets legal feed value.
....	16·75	3·74	5 25	"	3922	" "
J. C. ROULEAU, INSPECTOR.						
.....	11·00	11·52	4·80	None.....	1689	Meets legel feed value.
....	10·40	4·48	5·55	"	1690	" "
Reg. No. 101. Melange. Claim, Protein, 8 5, Fat=3·1 Fibre=14·5.	9·70	4·74	13·25	"	1691	Meets claim of guarantee.
Blé d'Inde....	9·90	4·02	1·92	"	1692	Meets legal feed value.
Blé.....	16 00	3 58	5 20	"	1693	"
Reg. No. 14, Claim, Protein, 8·0, Fat 3 5, Fibre=12·0	9·04	3·26	11 04	"	1694	Meets guarantee.
....	12 50	5·18	9·10	2 Wild Oats....	1695	Meets legal feed value.
Blé d'Inde..	9·42	3·74	1 48	None.....	1696	"
Melange	10·90	3 48	14·83	"	1697	Excess fibre. Adulterated
Avoine and Blé. . .	12·50	2·64	4·57	1 Ball Mustard.	1698	Meets legal feed value.
D. J. KEARNEY, INSPECTOR.						
.....	9 67	3 40	15·39	6 Lambs Quarters. 1 Russian Pigweed.	62691	Excess Fibre. Adulterated.
.....	9 55	3 62	15·43	None ...	62692	" "
.....	9 34	2 78	7·40	"	62693	Nearly meets legal feed value. Pass
.....	8 82	4·08	17 35	"	62694	Low protein and excess fibre. Adulterated.
.....	7 65	1 92	19 10	"	62695	"
.....	9 02	2 90	13 67	"	62696	" "
.....	11 40	3·48	11 95	*1 Sow Thistle 1 Stinkweed 2 Wild Mustard.*	62697	Slight excess fibre. Pass. Noxious weed seeds in Excess.
.....	12·60	3 06	7 36	None	62698	Meets legal feed value.
.....	8 89	2·42	10·65	1 Black Bindweed 7 Lambs Quarters. 1 Pennycress.	62699	Protein slightly low and slight excess fibre. Pass
.....	14 07	3·65	10 25	None	62700	Meets legal feed value.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacture or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacture.	Furnisher.
DISTRICT OF OTTAWA—							
1915.							
Jan. 12	Chop Feed....	63386	G. D. Atkinson, Cornwall.	3 lbs.	....	Vendor	. ...
" 12	"	63387	Black & Borthwick, "	3 "	....	Vendors.....	.....
" 12	"	63388	" " "	3 "	....	"	. ...
" 12	"	63389	Tilton & Graham "	3 "	6	Peterboro Cereal Co.	.....
" 28	"	63390	Doyle Bros., Prescott ...	4 "	10	Maple Leaf M. Co. Kenora.	.....
Feb. 9	Provender....	63391	Lake of the Woods M. Co., Ottawa.	3 "	....	Vendors.....	.....
" 9	"	63392	Ed. St. Germain, Ottawa.	3 "	10	Renfrew M. Co., Renfrew.	....
" 9	Chop Feed....	63393	Western F. M. Co., "	3 "	....	Vendors.....	....
" 9	Provender....	63394	J. A. Forward, "	3 "	....	Vendor	.....
" 20	"	63395	J. J. Ralph "	3 "	....	Wm. R. Cummings Cummings' Bridge.	....
DISTRICT OF KINGSTON—							
Feb. 1	Moulee.....	66546	The Maple Leaf M. Co., Kingston.	3 lbs.	10	Vendors.....	..... .
" 1	"	66547	Geo. Gibson, Kingston ..	3 "	10	Maple Leaf Milling Co.	....
" 9	"	66548	E. Brawley, Sydenham...	3 "	10	" "	.....
DISTRICT OF TORONTO—							
Feb. 16	Chop.....	66801	James Reynolds, Aurora..	3 lbs.	10	Wm. Reynolds & Son, Staynor.	.....
" 16	"	66802	W. J. Baldwin, "	3 "	10	Vendor	... .
" 16	"	66803	Geo. Forester, Newmarket	3 "	10	"	....
" 17	"	66804	A. J. Lowick & Son, Sutton.	3 "	10	Vendors.....	....
18	"	66805	R. W. Dixon, Oshawa....	5 "	10	Vendor	.. . .

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CHOP FEED.

Inspector's Report, (Is not an expression of opinion.)	Results of Analysis. Protein.	Fat.	Fibre.	Vital Weed Seeds per Ounce.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
J. A. RICKEY, INSPECTOR.						
	p.c.	p.c.	p.c.			
Corn and Oat Chop..	10·35	3·96	5·29	None	63386	Meets legal feed value.
" "	10·50	4·24	7·16	"	63387	" "
Corn Chop	9·36	3·90	1·85	"	63388	" "
Barley "	13·35	2·44	6·80	"	63389	" "
Oat "	13·00	4·18	10·70	1 *Wild Oat*	63390	" "
Oxmeal Reg. No. 51. Claim — Protein 16·5—Fat = 3 0 — Fibre 7 6.	16·85	3·44	4·80	None	63391	" "
	11·80	2·90	7·65	2 Bed straw	63392	" "
Excelsior, Reg. No. 345. Corn, Oats and Wheat. Claim Protien 11 11—Fat = 2·73 — Fibre = 15·51.	9·11	2·94	15·40	12 Black Bindweed, 7 Lambs' Quarters, 2 American Dragonhead, 1 *Chicory*, 1 Cinquefoil, 1 Pennycress, 1 Peppercrest, 1 Western Sunflower, 3 Evening Primrose, 1 *Ball Mustard*, 4 *Hares Ear Mustard*, 1 *Tumbling Mustard*, 43 *Wild Mustard*, 25 *Stickseed*.	63393	Low in proteids. Noxious weed seeds in excess Adulturated.
	13·30	4·64	7·55	None	63394	Meets legal feed value.
	11·50	4·10	8·00	"	63395	" "
JAS. HOGAN, INSPECTOR.						
	17·70	4·30	4·15	None	66546	Meets legal feed value.
	17·55	4·28	4·20	"	66547	" "
	18·50	4·54	5·55	"	66548	" "
H. J. DAGER, INSPECTOR.						
	13·40	2·86	8·15	1 *Wild Oat*	66801	Meets legal feed value.
	12·80	2·76	5·71	None	66802	" "
	11·20	3·57	5·45	8 Cheat	66803	" "
	11·90	3·49	5·10	3 *Wild Oats*, 1 Wormseed Mustard.	66804	Meets legal feed value. Noxious weed seed in excess.
	12·10	4·10	8·88	1 *Wild Mustard*, 9 *Wild Oats*	66805	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturre or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF TORONTO—	
1915.							
Feb. 18	Chop..... ..	66806	Cooper Smith Co., Oshawa	5 lbs.	10	Vendors..	.....
" 24	"	66807	The Watt M. & F. Co., Toronto.	5 "	10	"	. ...
" 25	"	66808	Wallace Bros., Woodbridge.	5 "	10	"	.....
" 25	Chop Feed...	66809	Moody Bros., Weston ...	3 "	5	"	....
" 25	" ..	66810	F. A. Oldham, Weston...	3 "	10	.....	Walker Thistledown.
						DISTRICT OF HAMILTON—	
Mar. 2	Chop Feed...	66824	J. R. White & Sons, Galt.	3 lbs.	5	Vendors....	.....
" 3	" ..	66825	Wm. Snider, Waterloo, Ont.	3 "	10	"	.....
" 3	" ..	66826	S. Brown & Son, Berlin .	3 "	10	"	....
" 9	" ..	66827	Geo. E. Taylor, Paris Station.	3 "	10	Tavistock M. Co., Tavistock.	.....
" 9	" .	66828	W. Rutherford, Paris ...	4 "	5	"	....
" 10	" ..	66829	Wood Bros., Brantford...	3 "	...	Vendors	....
" 11	" ..	66830	H. Rayner & Co., Grimsby	4 "	10	.....	Unknown.....
" 11	" ..	66832	Tufford & Wismer, Beamsville.	5 "	10	D. B. Wood M.Co., Hamilton.	....
" 12	" ..	66833	P. B. Newton & Sons, Dundas	5 "	5	Niagara G. and F. Co., Ltd., Toronto.	....
" 13	" ..	66902	Wood Milling Co., Ltd., Hamilton.	5 "	10	Vendors	... .
						DISTRICT OF WINDSOR—	
Feb. 17	Chop Feed...	54716	G. M. McKay, Ingersoll.	3 lbs.	7	Scott & Daniels Ingersoll.	....
" 18	" ..	54722	St. Marys M. Co., St. Marys.	3 "	10	....	.....
" 18	" ..	54724	Weir & Weir, St. Marys.	3 "	Nil.	Vendors.... .. .	.....
" 19	" ..	54727	R. M. Pincombe, Strathroy.	3 "	5	Vendor	... .
" 19	" ..	54728	S. S. Donaldson, Strathroy.	3 "	Nil.	"	.. ..
" 23	" ..	54729	Empire M. Co., St. Thomas	3 "	"	Vendors.....	.....

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CHOP FEED.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Protein.	Fat.	Fibre.	Vital Weed Seeds per Ounce.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.						
	p.c.	p.c.	p.c.			
.....	13 92	5·42	6·80	6 Black Bindweed, 2 American Dragonhead, 8 Lambs' Quarters, 1 *Ball Mustard*, 1 *Hares-Ear Mustard*, 2 *False Flax*, 4 *Wild Mustard*, 12 *Wild Oats*.	66806	Meets legal feed value. Noxious weed seed in excess.
. ...	11 15	4·34	10·65	4 *Wild Oats*, 6 *Wild Mustard*, 1 Lambs' Quarters, 1 Black Bindweed.	66807	" "
....	11·90	4·62	9·70	22 *Wild Oats*.....	66808	" "
....	11·95	4·14	11·20	None	66809	Slight excess fibre. Pass.
....	12·35	3·48	9·00	1 *Wild Oat*.....	66810	Meets legal feed value.
H. J. DAGER, ACTING INSPECTOR.						
.. ..	12 05	3·55	5·30	1 pennycress	66824	Meets legal feed value.
....	11·80	5·00	9 20	2 *Wild Oats*, 1 *Wild Mustard*.	66825	" Noxious weed seeds in excess.
.....	10·70	4·36	11 20	None	66826	Slight excess fibre. Pass
One-third mill screenings and two-third oat feed. No analysis on bags.	7 08	3 14	10·90	"	66827	Low proteids Adulterated.
" "	7 53	3 72	23 30	1 *Hares Ear Mustard*, 3 Lamb Quarters, 1 Russian Pig weed.	66828	Low proteids and excess fibre. Adulterated
.. ..	13 33	3·50	4 06	None	66829	Meets legal feed value
.. ..	12 30	4 55	10 57	"	66830	"
....	11 65	3 18	4 35	. ...	66832	"
Niagara Dairy Feed. Claim Protein 13·5, Fat 4·0, Fibre 10·5	8·27	3 31	14·42	"	66835	Low proteids and excess fibre. Adulterated
....	10·40	4·36	9 40	6 Black Bindweed, 1 Penny cress, 1 *Western False Flax*, 2 *Wild Mustard*.	66837	Meets legal feed value. Noxious weed seeds in excess
JNO. TALBOT, INSPECTOR.						
....	11 60	3 66	10 40	None	54716	Meets Legal feed value
....	11 03	3·56	9 46	"	54722	"
....	11 95	3 28	8 85	"	54724	"
....	11 05	4 00	6 60	"	54727	"
....	11 95	3 40	6 70	"	54728	"
... .	11 50	8 20	4 21	"	54729	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF MANITOBA—							
1915.							
Jan. 27	Chop Feed....	61236	Ogilvie Flour Mills Co., Winnipeg.	3 lbs..	....	Vendors..	....
Feb. 4	" ...	61237	Lake of the Woods M. Co., Portage-la-Prairie.	3 " ..	.. .	"	.....
" 4	" ...	61238	" " ...	3 " ..	....	"	.....
" 5	" ...	61239	Western Flour Mills Co., St. Boniface.	" ..	....	"	....
" 5	" ...	61240	" " ...	3 " ..	....	"	.....
" 17	" ...	61241	Laing Bros., Winnipeg..	3 " ..	....	"	....
" 17	" ...	61242	Carnefac Stock Food Co., Winnipeg.	3 " ..	....	"	.....
" 17	" ...	61243	" " ...	3 " ..	...	"	.....
" 23	" ...	61244	Western Flour Mills Co., Brandon.	3 " ..	....	"	.....
" 23	" ...	61245	" " ...	3 " ..	....	"	.....
DISTRICT OF SASKATCHEWAN—							
Feb. 1	Chop Feed....	66334	Chas. S. Walsh, Moosejaw	5 lbs.	10	Vendors.... ..	.....
" 1	" . .	66339	Charles H. Boyd, " ..	5 " ..	10	"	.....
" 2	" ...	66342	Adam Johnson, Rouleau.	3 " ..	4	"	.....
" 3	" ...	66348	J. H. Mooney, Weyburn.	4 " ..	Nil.	, ...	....
" 3	" ...	66349	Soo Line M. & E. Co., "	3 " ..	"	"	....
DISTRICT OF ALBERTA—							
Mar. 13	Chop Feed....	52110	Wetaskiwin Produce Co., Wetaskiwin.	3½ lbs.	...	Vendors	.....
" 13	" ...	52111	" " ...	3½ "	....	"	.....
" 23	" ...	52112	Crown Feed and Produce Co., Calgary.	5 "	....	Quaker Oats Co., Saskatoon	....
" 23	" ...	52113	Thos. Fletcher, Calgary .	4 "	15	Vendors.....	....
" 23	" ...	52114	" " ...	4 "	10	"	... .

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CHOP FEED.

Inspector's Report (Is not an expression of opinion.)	Results of Analysis. Protein.	Fat.	Fibre.	Vital Weed Seeds per ounce.	No. of Sample.	Remarks and opinion of the Chief Analyst.
A. C. LARIVIERE, INSPECTOR.						
	p. c.	p. c.	p. c.			
.....	12·95	4·96	8·20	1 *Wild Oat*, 6 Lamb's Quarters 1 American Dragonhead.	61236	Meets legal feed value.
Oats.....	13·35	5·00	7·35	3 Black Bindweed, 17 *Wild Oats.*	61237	Meets legal feed value. Noxious weed seeds in excess.
Barley.....	13·70	2·32	6·10	4 Black Bindweed, 4 *Wild Oats*, 1 Russian Pigweed.	61238	" "
"	12·55	2·08	6·15	None.....	61239	Meets legal feed value.
Oats.....	11·75	4·48	8·25	1 *Wild Oat*..	61240	" "
Oat Feed.....	13·30	4·44	9·50	12 *Wild Oats*, 7 Lamb's Quarters, 1 Pennycress.	61241	Meets legal feed value. Noxious weed seeds in excess.
"	12·65	4·18	8·90	11 *Wild Oats*.....	61242	" "
Barley Feed	12·35	1·82	4·75	1 Pennycress..... ...	61243	Meets legal feed value.
Rolled Oats Chop...	13·05	4·81	10·65	130 Lamb's Quarters, 12 Black Bindweed, 11 Pennycress, 1 Russian Pigweed, 3 *Stick-seed*, 3 Wallflower, 1 *False Flax*, 5 Tansy Mustard, 5 *Tumbling Mustard.*	61244	Meets legal feed value. Noxious weed seeds in excess.
Oat Chop.....	15·55	5·64	7·85	1 Lamb's Quarters, 1 *Wild Oats.*	61245	Meets legal feed value.
L. H. HALL, INSPECTOR.						
Ground Corn.....	9·60	3·84	2·10	None.....	66334	Meets legal feed value.
Ground Oats and Corn.	11·05	4·20	4·80	10 *Wild Mustard*, 3 *Hare's-ear Mustard*, 8 Pennycress, 4 Lamb's Quarters.	66339	Meets legal feed value. Noxious weed seeds in excess.
Ground Oats and Barley.	13·85	3·58	5·90	None.....	66342	Meets legal feed value.
Ground Corn.. ..	9·62	3·96	1·95	None.....	66348	"
Ground Oats. . .	13·25	3·86	9·65	None..	66349	"
A. W. R. MARKLEY, INSPECTOR.						
All Ground Barley..	12·35	2·42	5·23	None	52110	Meets legal feed value.
Oats..... ..	12·70	2·24	5·90	4 Black Bindweed, 12 Lamb's Quarters	52111	" "
Reg. No. 339 .... Claim—Protein 7·5. Fat 3·0. Fibre 20·0.	7·50	3·14	17·80	4 Lamb's Quarters . .	52112	Meets claim
Chopped Oats ...	13·50	4·70	8·65	13 " "	52113	Meets legal feed value.
Chopped Barley . .	12·10	2·24	5·23	None	52114	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF ALBERTA—							
1915.							
Mar. 23	Chop Feed ...	52115	Erl & Anderson, Calgary.	5 lbs.	15	Robin Hood Mills.	
" 23	" ...	52116	" " ..	5 "	15	W. Munro, Springbank, Alta.	
" 23	" ...	52117	Robin Hood Mills, Calgary.	5 "	....	Robin Hood Mills, Moose Jaw.	
" 23	" ...	52118	" " ..	5 "	....	Vendors	
" 23	" ...	52119	West End Feed Store, Calgary.	5 "	10	Quaker Oats Co., Saskatoon.	
DISTRICT OF ROCKY MOUNTAINS—							
Feb. 1	Chop Feed ...	61749	Brackman-Ker M. Co., Nelson, B.C.	5 lbs.	15	B. K. M. Co., Calgary.	
Mar. 16	" ...	61790	Brackman-Ker M. Co., Rossland.	5 "	25	" " ..	
DISTRICT OF VANCOUVER—							
Feb. 1	Chop Feed ...	55188	Alberta Pacific Grain Co., Ltd., Vancouver, B.C.	3 lbs.	....	Quaker Oats Co., Saskatoon.	
" 4	" ...	55189	" " ..	3 "	....	Vendors	
" 5	" ...	55190	Vancouver Milling and Grain Co., Vancouver, B.C.	3 "	....	"	
" 6	" ...	55191	F. T. Vernon, 255 Broadway, Vancouver, B.C.	3 "	5	Vendor	
" 6	" ...	55192	" " ..	3 "	5	"	
" 6	" ...	55193	A. E. Burnett & Co., City Market, Vancouver, B.C.	3 "	5	Vendors	
" 6	" ...	55194	" " ..	3 "	10	"	
" 8	" ...	55195	Tait Bros., Eburne	3 "	....	"	
" 8	" ...	55196	McLellan-McCarter Co., Ltd., 1605 6th Ave. W., Eburne.	3 "	10	"	
" 8	" ...	55197	" " .	3 "	15	"	
" 9	" ...	55208	Grain Growing, B.C. Agency, New Westminster, B.C.	3 "	....	"	
" 9	" ...	55209	" " ..	3 "	...	"	

SESSIONAL PAPER No. 14

CHOP FEED.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Protein.	Fat.	Fibre.	Vital Weed Seeds. per ounce.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.						
	p. c.	p. c.	p. c.			
Chopped Oats	12·90	5·08	9·00	None	52115	Meets legal feed value.
" Barley ...	14·00	2·44	4·90	"	52116	" "
Oat Feed	6·95	3·20	21·04	"	52117	Low protein and excess fibre. Adulterated.
Barley Chop.....	12·50	2·00	5·47	"	52118	Meets legal feed value.
Reg. No. 339. Claim —Protein 7·5, Fat 3·0, Fibre 20·0.	7·50	3·16	17 53	8 Lambs' Quarters.....	52119	Meets claim of guarantee.
THOS. PARKER, INSPECTOR.						
Empire	6·58	1·33	24 22	None...	61749	Low protein and excess fibre. Adulterated.
....	2 60	1·16	29·10	"	61790	"
E. J. MORGAN, INSPECTOR.						
Dairy Feed	7·02	3 18	22·12	7 Lambs' Quarters, 1 Black Bindweed.	55188	Low protein and excess fibre. Adulterated.
Excelsior Chop	11·10	3 10	6·75	10 Lambs' Quarters, 5 *Ball Mustard*, 3 *Wild Mustard*.	55189	Meets legal feed value. Noxious weed seeds in excess.
Excelall " ..	10·95	4·96	6·09	7 Black Bindweed, 2 *Wild Oats*.	55190	Meets legal feed value.
Oat "	11·90	5 34	8 15	None . .	55191	" "
Barley " . . .	12·00	1 78	4 10	6 Lambs' Quarters	55192	" "
Oat "	11·90	1 86	8 85	None .	55193	" "
Barley	11 20	1 92	6 75	" . . .	55194	" "
" "	7·77	1 64	4 80	2 Black Bindweed, 3 Spurrey, 1 *Wild Oat*.	55195	Low in protein. Adulterated.
Corn " .	8 13	3 60	1 80	None . . .	55196	" "
Oat . .	11 00	5 56	8 30	1 Cow Cockle, 1 Wild oat, 1 Spurrey	55197	Meets legal feed value.
Danish Milk Feed	11 85	6 36	11 75	None	55198	Slight excess fibre. Pass
Paisley Dairy.	18 75	6 20	10 90	.	55199	Meets legal feed value.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF VICTORIA—				
1915.							
Feb. 22	Chop Feed...	62071	Brackman Ker M. Co., Victoria, B.C.	4 lb..	....	Vendors.....	.....
" 22	"	62072	" "	4 " ..	....	"	.....
" 22	"	62073	" "	4 " ..	....	"	.....
" 22	"	62074	" "	4 " ..	...	"	....
" 23	"	62075	Scott & Peden, Victoria, B.C.	4 " ..	7	Robin Hood Mills, Moose Jaw.	.....
" 23	"	62076	" "	4 " ..	8	Brackman Ker M Co., Victoria.	.....
Mar. 5	"	62081	Vancouver M. and Grain Co., Victoria, B.C.	4 " ..	....	Vanc. M. and G. Co., Vancouver.	... .
" 5	"	62082	" "	4 " ..	....	"	.. ..
" 5	"	62083	" "	4 " ..	....	"	.....

SESSIONAL PAPER No. 14

CHOP FEED.

Inspector's Report. (Is not an expression of opinion.	Results of Analysis. Protein.	Fat.	Fibre.	Vital Weed Seeds. Per ounce.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
D. O'SULLIVAN, INSPECTOR.						
	p. c.	p. c.	p. c.			
Corn Chop, Reg. No., 136. Claim: Protein 9·0, Fat 4·0 Fibre 8·0.	9·40	3·20	11·72	None	62071	Some excess fibre. Pass.
Oat Feed, Reg. No. 137. Claim: Protein 7 0, Fat 3·0, Fibre 15·0.	7·10	5·16	17·07	"	62072	Meets claim of guarantee.
Jersey Dairy Feed, Reg. No. 138. Claim: Protein 18·0, Fat 5·0, Fibre 10·0.	21·65	5 00	11 77	"	62073	Meets claim of guarantee.
Chicken Chop, Reg. No. 154. Claim: Protein 15·0, Fat 5·0, Fibre 5·0.	15·20	4·24	7·48	"	62074	Meets legal feed value.
Oat Feed. Claim: Protein 5·25, Fat 2·5, Fibre 20·0. No Reg. No. on sacks.	6·79	3·00	20·70	"	62075	Meets claim.
Jersey Dairy Feed, Reg. No. 138. Claim: Protein 18·0, Fat 5·0, Fibre 10·0.	18·75	4·20	12·72	"	62076	Nearly meets claim. Pass
Excellall Chop. Not Registered.	15·65	3·40	6·95	35 *Wild Oats*, 1 Black Bind weed, 1 Smartweed.	62081	Meets legal feed value. Noxious weed seeds in excess.
Milk Food. Claim: Protein 25·3, Fat 5 23, Fibre 5 23.	16·65	4·18	11·42	None	62082	Protein below claim; fibre in excess. Adulterated.
Dairy, Reg. No. 139. Claim: Protein 11·1, Fat 4·5, Fibre 10 8.	13 40	2 28	9 25	"	62083	Meets legal feed value.

APPENDIX K.

BULLETIN No. 320—TABLE SYRUPS OTHER THAN MAPLE.

OTTAWA, August 7, 1915.

J. U. VINCENT, Esq.,
Deputy Minister Inland Revenue.

SIR,—The report herewith submitted deals with syrups other than maple, used as table syrups. Maple syrup has been several times made the subject of inspection, since it is peculiarly a Canadian product, and has been quite extensively adulterated. Samples of molasses have also been collected.

The samples now reported (200 in number) were purchased by our inspectors in January, February and March last, and may serve to show the general character of syrup, other than maple syrup, offered on the Canadian market. The samples may be classified as below:

Cane sugar syrups	49
Essentially glucose syrups	109
Mixtures, containing a considerable percentage of cane sugar syrup	27
Molasses	15
Total	200

It would appear from this showing that glucose, or so called corn starch syrups, are most largely found. All of these contain some cane sugar or refiner's syrup, and some of them contain considerable percentages of this. They are perfectly wholesome articles of food, decidedly less sweet than the cane sugar syrups. It is doubtless because of their cheapness that they are so much in evidence. The data here put on record will serve to give the public information regarding the syrups in the Canadian market, and will also be helpful towards standardization of syrup, under the Act, should such a step appear to be necessary.

I beg to recommend publication of this report as Bulletin No. 320.

I have the honour to be, Sir,
Your obedient servant,

ALP. LEMOINE,
For Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF NOVA SCOTIA—				
1915.							
Feb. 26	Table Syrup	64126	J. L. Wilson, Halifax, N.S.	3 tins.	56	A. Lyle & Son, London, Eng.	Mfrs
Mar. 4	" ..	64127	Wm. Moore, Halifax, N.S.	3 "	38	Can. Starch Co., Fort William, Ont	"
" 4	" ..	64128	R. B. Sweeton & Co., Halifax, N.S.	3 "	50	A. Lyle & Son, London, Eng.	"
" 5	" ..	64129	Payzant & King, Halifax, N.S.	3 "	33	Can. Starch Co., Fort William, Ont.	"
" 5	" ..	64130	Wentzells Ltd., Halifax, N.S.	3 "	35	St. Lawrence Starch Co., Montreal.	"
" 5	" ..	64131	James Scott & Co., Halifax, N.S.	3 "	45	Corn Products Refining Co., New York.	
			DISTRICT OF NOVA SCOTIA—				
Feb. 19	Table Syrup	65815	A. A. McDonald, New Glasgow.	3 tins.	45	A. Lyle & Son, London, Eng.	Unknown
" 19	" ..	65816	2 Barkers Ltd., New Glasgow.	3 "	39	Can. Starch Co., Fort William, Ont.	Mfrs
" 19	" ..	65817	James McArthur, New Glasgow.	3 "	51	Corn Products Refining Co., New York.	"
" 19	" ..	65818	James Cavanagh, New Glasgow.	3 "	54	A. Lyle & Son, London, Eng.	Unknown
" 19	" ..	65819	" " ..	2 lbs.	12	Can. Starch Co., Fort William, Ont.	Mfrs
" 19	" ..	65820	C. Grant, New Glasgow.	2 "	13	" " .	Unknown
" 19	" ..	65821	R. M. Sutherland, New Glasgow.	2 "	15	" " ..	Mfrs
			DISTRICT OF PRINCE EDWARD ISLAND—				
Apr. 8	Table Syrup	60175	Beer & Goff, Charlottetown.	3 tins.	48	Can. Starch Co., Cardinal.	
" 8	" ..	60176	Stewart & Son, Charlottetown.	3 lbs.	18	" " ..	
" 8	"	60177	E. Toombs, Charlottetown.	3 tins.	35		Carvell Bros., Charlottetown.
" 14	" ..	60178	Beer & Goff, Charlottetown.	3 "	60	A. Lyle & Son, London, Eng.	
" 14	" ..	60179	Jenkins & Son, Charlottetown.	3 "	45	Can. Starch Co, Cardinal.	
			DISTRICT OF NEW BRUNSWICK—				
Jan. 29	Table Syrup	59676	H. W. Cole, Ltd., St. John, N.B.	3 tins.	45	Can. Starch Co., Ltd., Cardinal.	
Feb. 9	" ..	59677	Puddington, Wetmore & Morrison, Ltd., St. John, N.B.	3 "	40	" " ..	

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TABLE SYRUP.

Inspectors's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Total Solids.	Water.	Ash.	Polarization. Direct.	Invert.	Difference.	Cane Sugar.		
R. J. WAUGH, INSPECTOR.									
	p. c.	p. c.	p. c.				p. c.		
Golden Syrup.....	81·70	18·30	1·82	+ 22·2	− 24·1	46·3	34·90	64126	Cane sugar syrup.
.....	77·00	23·00	0·70	+154·4	+150·7	3·7	2·79	64127	Chiefly glucose.
Golden Syrup.....	82·35	17·65	1·86	+ 22·4	− 24·2	46·6	35·13	64128	Cane sugar syrup.
.....	78·55	21·45	0·56	+151·4	+147·8	3·6	2·72	64129	Chiefly glucose.
Bee Hive Brand	80·60	19·40	0·90	+151·8	+146·5	5·3	4·00	64130	"
Karo Brand	76·35	23·65	0·82	+147·2	+141·4	5·8	4·37	64131	"
W. A. PETIPAS, TEMPORARY INSPECTOR.									
.....	82·25	17·75	1·50	+ 20·4	− 23·3	43·7	32·94	65815	Cane sugar syrup.
.....	76·00	24·00	0·51	+156·4	+152·9	3·5	2·64	65816	Chiefly glucose.
.....	76·30	23·70	0·98	+147·4	+141·7	5·7	4·30	65817	"
.....	81·35	18·65	1·74	+ 21·6	− 23·1	44·1	33·25	65818	Cane sugar syrup.
.....	76·65	23·35	0·63	+152·4	+148·5	3·9	2·94	65819	Chiefly glucose.
.....	76·50	23·50	0·68	+153·4	+148·9	4·5	3·40	65820	"
.....	75·80	24·20	0·53	+156·0	+153·3	2·7	2·05	65821	"
WM. A. WEEKS, INSPECTOR.									
.....	75·05	24·95	0·44	+151·4	+148·7	2·7	2·05	60175	Chiefly glucose.
.....	68·60	31·40	0·30	+107·4	+ 66·2	41·2	31·08	60176	Cane sugar and glucose.
.....	75·85	24·15	0·58	+157·6	+153·1	4·5	3·32	60177	Chiefly glucose.
.....	81·65	18·35	1·80	+ 21·2	− 22·2	43·4	32·65	60178	Cane sugar syrup.
.....	75·05	24·95	0·58	+146·6	+141·2	5·4	4·06	60179	Chiefly glucose.
JNO. C. FERGUSON, INSPECTOR									
Crown Brand Corn, Sydney	77·35	22·65	0·64	+152·6	+148·0	4·6	3·47	59676	Chiefly glucose.
Crown Brand ...	76·00	24·00	0·42	+153·0	+148·0	5·0	3·77	59677	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NEW BRUNSWICK—							
1915.							
Feb. 10	Table Syrup	59678	J. W. Philips, St. John, N.B.	3 bots.	45	Crosse & Blackwell, London, Eng.	.....
" 16	" .	59679	J. W. Robinson, St. Stephens, N.B.	3 tins.	40	Can. Starch Co., Cardinal, Ont.	W. C. Purves, St. Stephen, N.B.
" 19	" ..	59680	G. T. Whelpley Estate, Fredericton, N.B.	3 "	60	A. Lyle & Son, London, Eng.	.....
" 19	" ..	59681	M. E. Doohan, Fredericton, N.B.	3 "	40	Can. Starch Co,, Cardinal, Ont.	.....
" 24	" ..	59682	J. Burgess & Son, Ltd., Grand Falls, N.B.	3 "	45	Corn Products Refining Co., New York.	.....
Mar. 2	" ..	59683	Mills Eveleigh Co., Ltd., Sussex, N.B	3 "	45	Canada Starch Co., Cardinal, Ont.	....
" 3	" ..	59684	Reed Co., Ltd., Moncton.	3 "	44	A. Lyle & Son, London, Eng.	.....
" 3	" ..	59685	Roderick McLean, Moncton.	3 "	45	Edwardsburg Starch Co., Cardinal, Ont.	.....
DISTRICT OF QUEBEC CITY—							
Jan. 20	Table Syrup	60764	Arthur Drolet, Quebec.	1½ lb.	10	Unknown	Unknown .....
" 20	" ..	60765	T. Art. Bedard, Quebec.	1½ "	15	"	Turcotte & Frère.
" 20	" ..	60766	" " ..	1½ "	15	"	N. Rioux & Cie.
" 21	" ..	60767	O. Lacroix, Quebec....	1½ "	15	P. Masson, Barbadoes..	N. Turcotte & Cie.
" 21	" ..	60768	" " ..	1½ "	15	Sammers & Son, Barbadoes.	Gagnon & Garent.
" 21	" ..	60769	" " ..	1½ "	15	S. F. Masson & Son, Barbadoes.	" ..
" 21	" ..	60770	Cantin & Frère, Quebec.	1½ "	15	Gagnon & Garent	" ..
" 22	" ..	60771	Myrand & Pouliot, Quebec.	1½ "	15	"	" ..
" 22	" ..	60772	" " ..	1½ "	15	.....	Turcotte & Frère.
" 22	" ..	60773	C. Riverin, Quebec....	1½ "	15	Unknown.....	" ..
DISTRICT OF QUEBEC PROVINCE—J. E. AUDET, O. BROCHU							
Jan. 18	Molasse	3746	Syndicat de Thetford Mines.	1 pint.	15	. .. .	J. B. Renaud, Quebec.
" 18	"	3747	"	1 "	15	.. ..	Quebec Preserving Co.
" 20	"	3750	John O'Brien, Black Lake, Megantic.	1 "	15	....	Denault, G. & P., Co., Sherbrooke.
" 25	"	3755	Dodier & Crete, Levis.	1 "	15	. . ..	J. B. Renaud, Quebec.

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TABLE SYRUP.

Inspector's Report. (Is not an Expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Total Solids.	Water.	Ash.	Polarization. Direct.	Invert.	Difference.	Cane sugar.		
Concluded.									
	p. c.	p. c.	p. c.				p. c.		
Golden Syrup.....	81·65	18·25	1·81	+ 21·0	− 22·0	43·0	32 40	59678	Cane sugar syrup.
....	75·85	24·15	0·43	+155·8	+150·7	5·1	3 84	59679	Chiefly glucose.
Lyles Golden Syrup...	81·45	18 55	1·81	+ 22 6	− 22 6	45 2	34·07	59680	Cane sugar syrup.
Crown Brand.....	75·35	24·65	0·35	+151·0	+146 5	4 5	3·32	59681	Chiefly glucose.
Karo Brand	75·15	24·85	1 01	+144 6	+140·6	4 0	3 00	59682	"
Crown Brand.....	76 50	23 50	0·58	+143·2	+139 0	4 2	3·17	59683	"
Lyles Golden Syrup...	82 15	17·85	1·94	+ 21·2	− 23 3	44·5	33·55	59684	Cane sugar syrup.
Crown Brand.....	76·15	23·85	0·62	+153·2	+148·9	4 3	3 24	59685	Chiefly glucose.

F. X. W. E. BELAND, INSPECTOR.

.. ..	.....	.....	.....	Molasses	. ..	...	60764	Molasses.
....	.....	.....	.....	"	...	..	.	60765	"
....	.....	.....	...	"	....	.. ...	....	60766	"
....	... .	.....	...	"	.. .	.....	.....	60767	"
.....	.....	.....	.. ..	"	....	..	.. ..	60768	"
Fancy	.. ...	.....	..	"	...	.....	.....	60769	"
....	.....	.....	.....	"	.	..	..	60770	"
....	.	..... .	..	"	. ...	...	...	60771	"
Fancy Barbadoes ...	.	.....	...	"	...	. .	...	60772	"
" " .. .	..	..	.	"	...	...	...	60773	"

N. CADIEUX, T. GENDREAU, ALPH. PELLETIER, TEMP. INSPECTORS.

.. ..	...	...	...	Molasses	...	...	...	3746	Molasses.
....	...	.....	.....	"	...	...	.....	3747	"
... ...	...	.....	...	"	...	...	...	3748	"
... ...	...	.....	...	"	...	...	...	3749	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF QUEBEC PROVINCE—	
1915.							
Jan. 25	Table Syrup	3758	Dodier & Crete, Levis.	3 tins.	45	....	J. B. Renaud, Quebec.
" 26	"	3763	G. & E. Couture, Levis	3 "	45	Canada Starch Co., Cardinal.	....
" 27	"	3765	J. A. Gagnon & fils, Levis.	3 "	45	" "	....
" 29	"	3774	O. Lacroix, Quebec....	3 "	45	" "	....
Feb. 2	" ..	3781	P. G. Turgeon, Quebec	3 "	45	" "	....
" 3	"	3784	Boyer & Son, Quebec..	3 "	45	" "	. ...,.
" 4	"	3788	A. Boily, Quebec.	3 "	36	" "	. .. .
" 6	Sirop Table.	3501	Arthur Fradette, Armagh.	1 pinte	30	" "	....
" 6	" .	3502	Onesime Noel, Armagh	1 "	30	St. Lawrence Starch Co., Ltd.	.....
" 8	" .	3508	Arthur Ursinault, St. Gervais.	3 tins.	45	Imperial Syrup Co., Ltd., Montreal.	.. . .
" 9	" .	3510	J. B. Lacroix, St. Charles.	3 "	45	Canada Starch Co., Edwardsburg.	....
" 9	" .	3512	J. H. Couture, St. Charles.	3 chopin.	35	" "	.....
" 9	" .	3517	J. A. Lemieux, St. Michel.	6 lbs.	42	" "	....
" 9	" .	3519	Louis Corriveau, St. Michel.	6 "	45	" "	.....
" 10	" .	3523	Eugene Bolduc, St. Valier.	3 tins.	30	Imperial Sugar Co., Montreal.	....
" 1	" .	262	Cie de Construction & Bois, Ste. Agathe des Monts.	3 "	45	Edwardsburg.....	....
" 1	" .	263	Dame N. Fournelle, Ste. Agathe des Monts.	3 "	45	"	....
" 1	" .	261	Noe Forget, Ste. Agathe des Monts.	3 "	36	"	... .
Jan. 20	Sirop de Table.	2736	L. G. Fournier, Montmagny.	3 tins.	60	Canada Starch Co., Cardinal.	.....
" 27	" .	2740	Phileas Letourneau & Cie, St. Pierre, Co. Montmagny.	3 "	60	" "	Carrier & fils, Levis.
Feb. 1	Sirop Doré..	56442	H. J. Serois & Cie, Cacouna.	3 "	90	....	T. Langlois, Fraserville.
" 3	Sirop Blédinde.	56444	Philodime Michaud, Isle Verte.	3 "	45	N. Rioux, Quebec	....
						DISTRICT OF THREE RIVERS—	
Jan. 16	Sirop de Table. ..	3911	V. H. Ducharme, St. Felix.	5 lbs.	28	Canada Starch Co., Cardinal.	.. ..
" 18	"	3912	Joseph Desfresne, Joliette.	3 cans	33	" "	....

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TABLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Total Solids.	Water.	Ash.	Polarization. Direct.	Polarization. Invert.	Polarization. Difference.	Cane sugar.		
Concluded.									
	p.c.	p.c.	p.c.				p.c.		
.. ..	See	Sample	Nos.	3763	64694	....	...	3758	Chiefly glucose.
. . ..	76·00	24·00	0·62	+151·2	+147·6	3·6	2·7	3763	"
....	See	Sample	Nos.	3763	64694	.....	. ..	3765	"
....		"		3763	64694	.....	.....	3774	"
....		"		3763	64694	.....	....	3781	"
.....		"		3763	64694	... ..	.....	3784	"
....		"		3763	64694	.....	.....	3788	"
Crown Brand.....		"		3763	64694	. ...	.....	3501	"
..... .		"		63900	52100	....	....	3502	"
....	74·05	25·95	2·80	+ 81·0	+38·5	42·5	32·1	3508	Cane sugar and glucose.
Crown Brand.....	See	Sample	Nos.	3763	64694	.	...	3510	Chiefly glucose.
....		"		3763	64694	.....	.....	3512	"
. ...		"		3763	64694	... .	....	3517	"
Crown Brand		"		3763	64694	....	....	3519	"
... .	78·95	21·05	2·68	+101·6	+ 64·7	36·9	27·8	3523	Cane sugar and glucose.
....	See	Sample	Nos.	3763	64694	.. .	....	262	Chiefly glucose.
....		"		3763	64694	.....	.....	263	"
....		"		3763	64694	...	....	264	"
....	See	Sample	Nos.	3763	64694	...	....	2736	Chiefly glucose.
. .. .		"		3763	64694	....	....	2740	"
....		"		66844	63993	....	....	36442	Cane sugar syrup.
....		"		3763	64694	.. ..	....	36441	Chiefly glucose.
L. V. P. LAVALLEE, INSPECTOR.									
. ...	See	Sample	Nos	3763	64694	.....	.....	3911	Chiefly glucose.
....		"		3763	64694	.....	.....	3912	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF THREE RIVERS—	
1915.							
Jan. 19	Sirop de Table.	3913	Joseph Bordeleau, Joliette.	3 cans	45	Canada Starch Co., Cardinal.	.....
" 20	" ..	3914	W. M. Perrault, Joliette.	3 "	39	" "	.....
" 20	" ..	3915	J. A. Boisvert, Joliette	3 "	50	.....	Chevalier & Pouliot, Joliette.
" 21	" ..	3916	W. H. Lacasse, L'Assomption.	3 "	39	Canada Starch Co., Cardinal.	.....
" 21	" ..	3917	Edmund Lafortune, L'Assomptian.	3 "	36	" "	.....
" 21	" ..	3918	Theodore Foisy, L'Assomption.	3 "	36	" "	.....
" 20	" ..	3919	C. Barette, Joliette...	3 "	36	" "	.....
" 27	" ..	3920	J. B. Rivest, Joliette..	3 "	36	" "	.....
						DISTRICT OF EASTERN TOWNSHIPS—	
Feb. 9	Sirop de Table.	1787	A. W. Beausoleil, Richmond Est.	2 lbs.	15	St. Lawrence Refinery, Ltd., Montreal.	.....
" 9	Sirop Barbadoes.	1788	H. Pepin & fils, Warwick.	1 pint	10	Dom. Molasses Co., Montreal.	.....
" 9	Sirop de Blédinde.	1789	E. W. S. Gibson, Danville.	2 lbs.	15	Canada Starch Co., Cardinal.	.....
" 10	" "	1790	P. Tourigny & fils, Victoriaville.	5 "	50	" "	.....
" 11	Table Karo	1791	Woodman & McKee, Coaticook.	2 "	15	Corn Products Refining Co., New York.	.....
" 16	Table Crown	1792	H. Lanctot & fils, Sherbrooke.	2 "	12	Canada Starch Co., Cardinal.	.....
" 17	Table Lily White.	1793	F. W. B. Melloon, Rock Island.	3 lbs.	25	Can. Starch Co., Cardinal.	.....
" 17	Table Karo.	1794	Gosselin & Paradis, Magog.	3 cans.	45	Corn Products Refining Co., New York.	.....
" 18	Table de Cannes.	1795	Tenny & Boudreau, Waterloo.	3 "	45	St. Lawrence Refining, Ltd., Montreal.	.....
" 25	Table de Table.	1796	H. Messier, St. Hyacinthe.	2 lbs.	13	Can. Starch Co., Cardinal.	.....
						DISTRICT OF MONTREAL	
Jan. 28	Table Syrup	62671	J. A. Seguin, 34 Esbel st., Verdun.	3 tins.	39	Canada Starch Co.	.....
" 28	" ..	62672	J. E. Parent, 113 Esbel st., Verdun.	3 "	60	A. Lyle & Son...	.....
Feb. 2	" ..	62673	Dionne & Dionne, 4120 St. Cath. st. W., Westmount.	3 "	45	Corn Products Refining Co.	.....
" 12	" ..	62674	Hudon, Hebert & Cie., Montreal.	3 "	35	St. Lawrence Sugar Refining Co.	.....
Mar. 9	" ..	62675	Canada Maple Exchange, 101 Parthenais st., Montreal.	3 "	30	Vendors..	.....

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TABLE SYRUP.

Inspector's Report. (Is not an Expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Total Solids.	Water.	Ash.	Polarization. Direct.	Invert.	Difference.	Cane Sugar.		
Concluded.									
	p. c.	p. c.	p.c.				p.c.		
.. ..	See	Sample	Nos.	3763	64694	... ..	.....	3913	Chiefly glucose.
. ...		"		3763	64694	... ..	....	3914	" "
.....		"		3763	64694	....	....	3915	" "
... .		"		3763	64694	....	..	3916	" "
.....		"		3763	64694	.. .	.....	3917	" "
.....		"		3763	64694	. .	.....	3918	" "
.....		"		3763	64694	.....	... ..	3919	" "
. ...		"		3763	64694	....	. ..	3920	" "
J. C. ROULEAU, INSPECTOR.									
....	See	Sample	Nos.	66537	64693	...	.....	1787	Cane sugar and glucose.
Barbadoes.....	....	.. ....	—	Molasses		..	—	1788	Molasses.
Corn Syrup	See	Sample	Nos.	3763	64694	.....	....	1789	Chiefly glucose.
"		"		3763	64694	.	... ..	1790	" "
Karo,.....		"		66845	64691	... .	.....	1791	— —
Crown Brand		"		3763	64694	..	..	1792	— —
Lily White.		"		66847	63991			1793	" "
Karo		"		66845	64691	...	...	1794	" "
... ...		"		66537	64693			1795	Cane sugar and glucose.
.....				3763	64694	. .	.	1796	Chiefly glucose.
D. J. KEARNEY, INSPECTOR.									
Crown Brand	See	Sample	Nos.	3763	64694	.	.	1971	Chiefly glucose.
Lyle's Golden Syrup		"		66844	63993			1972	Cane sugar syrup.
Karo Brand	74 20	25 80	0 91	+ 142 4	+ 130 0	3 1	2 1	1973	Chiefly glucose.
Crystal Diamond ...	See	Sample	Nos.	66537	64693			1974	Cane sugar and glucose.
Small's Standard .	67 05	32 95	0 01	+ 66 3	− 20 7	87 0	60 7	1975	Cane sugar syrup.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity	Cents.	Manufacturer.	Furnisher.
DISTRICT OF MONTREAL—							
1915.							
Mar. 9	Table Syrup	62676	A. Beaudoin, 132 Delorimier st., Montreal.	3 tins.	39	Canada Starch Co., Ltd.	
" 15	" ..	62677	F. S. Potvin, 38 St. Edward st., Montreal.	3 "	60		L. T. Prairie, Montreal.
" 16	" ..	62678	A. Picard, 97 Carrière st., Montreal.	3 lbs.	35		P. Bastien, Montreal.
" 16	" ..	62679	N. Drouin, 678 Drolet st., Montreal.	3 tins.	36	Maples Ltd., Toronto ..	
" 17	" ..	62680	Fraser, Viger & Co., 309 St. James st., Montreal.	3 "	60	A. Lyle & Son	
DISTRICT OF VALLEYFIELD—							
Feb. 19	Table Syrup	58251	Richer & Page, Valleyfield.	3 tins.	36	Canada Starch Co.	
DISTRICT OF OTTAWA—							
Jan. 28	Table Syrup	63577	John Hughes, Prescott.	2 lbs.	15	Canada Starch Co., Cardinal.	Mfrs.
" 28	" ..	63578	Doyle Bros., Prescott.	3 tins	45	St. Lawrence Sugar Refinerns Ltd., Montreal	E. Gilmour, Brockville.
Feb. 4	" ..	63579	D.G. Cowan, 1227 Bank st., Ottawa.	3 "	30	A. Lyle & Sons, London, Eng.	
" 4	" ..	63580	Geo. H. Stoate, 1117 Bank st., Ottawa.	2 lbs.	15	St. Lawrence Starch Co., Ltd.	
Feb. 8	" ..	63581	A. E. Rea Co., Ltd., Ottawa.	3 tins.	45	Edwardsburg Starch Co., Ltd., Cardinal.	
" 8	" ..	63582	" " ..	3 "	45	Westburn Sugar Refiners, Ltd., Greenock, Scotland.	
DISTRICT OF KINGSTON—							
Feb. 1	Table Syrup	66536	W. E. Hopkinson, Kingston.	3 tins.	45	Canada Starch Co., Cardinal.	
" 3	" ..	66537	W. J. Nesbitt, Kingston.	3 "	45	St. Lawrence Sugar Refineries, Montreal.	
" 3	" ..	66538	J. Cullen, Kingston ..	3 "	45	" " ..	
" 3	" ..	66539	C. Saunders, Kingston.	3 "	45	Canada Starch Co., Cardinal.	
" 3	" ..	66540	C. H. Pickering, Kingston.	3 "	45	" " ..	
	" ..	66541	Anderson Bros., Kingston.	3 "	45	" " ..	

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TABLE SYRUP.

Inspector's Report. (Is not an Expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Total Solids.	Water.	Ash.	Polarization. Direct.	Invert.	Difference.	Cane sugar.		
Concluded.									
	p. c.	p. c.	p. c.				p. c.		
Crown Brand..... ...	See	Sample	Nos.	3763	64694	. ...	.....	62676	Chiefly glucose.
Yum Yum Bee Syrup.	85·20	14·80	0·19	+ 75·6	+ 49·6	26·0	19·6	62677	Cane sugar and glucose.
Sweet Sixteen	77·45	22·55	1·07	+129·6	+114 8	14·8	11·1	62678	Glucose and cane sugar.
Golden Bell.	76·75	23·25	1·86	+111·6	+ 88·0	23 6	17 8	62679	Cane sugar and glucose.
Lyle's Golden Syrup..	See	Sample	Nos.	66844	63993	.....	...	62680	Cane sugar syrup.
J. J. COSTIGAN, ACTING INSPECTOR.									
Crown Brand.	See	Sample	Nos.	3763	64694	... .	.....	58251	Chiefly glucose.
J. A. RICKEY, INSPECTOR.									
Crown Brand Corn Syrup.	See	Sample	Nos.	3763	64694	.....	..	63577	Chiefly glucose.
Crystal Diamond.		"		66537	64693	.....	. ..	63578	Cane sugar and glucose.
Lyle's Golden Syrup..		"		66844	63993	...	....	63579	Cane sugar syrup.
Bee Hive, Corn Syrup.		"		63900	52100	. ...	....	63580	Chiefly glucose.
Lily White Corn Syrup.	See	Sample	Nos.	66847	63991	....	. ..	63581	Chiefly glucose.
Golden Syrup.....	81·95	18·05	1 28	+ 21 8	- 21·3	43 1	32 5	63582	Cane sugar syrup.
JAMES HOGAN, INSPECTOR.									
. ...	See	Sample	Nos.	3763	64694			66539	Chiefly glucose.
... ...	78 95	21 05	4 30	+ 69 3	+ 34 0	35 3	26 0	66537	Cane sugar and glucose.
. . . .	See	Sample	Nos	66537	64693	...	..	66538	
....		"		3763	64694	. .	..	66539	Chiefly glucose.
.. ..		"		3763	64394	...	....	66540	"
. . . .		"		3763	64694			66541	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF KINGSTON—	
1915.							
Feb. 15	Table Syrup	66542	A. Kellaway, Belleville.	3 tins.	39	Canada Starch Co., Cardinal.	.....
" 15	" ..	66543	J. H. P. Young, Belleville.	3 "	45	" " ..	.....
" 16	" ..	66544	T. McIntosh, Cobourg.	3 "	45	" " ..	.....
" 16	" ..	66545	W. P. Platt, Cobourg.	3 "	45	" " ..	.....
						DISTRICT OF TORONTO—	
Feb. 16	Table Syrup	64690	James Whinster, Aurora.	3cans.	45	.....	Perkins & Co., Toronto.
" 16	" ..	64691	C. S. McCauley, Newmarket.	3 "	45	Corn Products Refining Co., New York.	.....
" 17	" ..	64692	G. F. McDonald, Sutton.	3 "	45	St. Lawrence Starch Co., Ltd.	.....
" 18	" .	64693	J. E. Beaton, Oshawa.	3 "	45	St. Lawrence Sugar Refineries, Montreal.	.....
" 18	" ..	64694	Malkinson Bros., Whitby.	3 "	45	Canada Starch Co.....	.....
" 22	" ..	64695	T. J. Midland, 132 King St. E., Toronto.	3 "	30	A. Lyle & Son, London, Eng.	.....
" 22	" ..	64696	A. Provan, 134 King St. E., Toronto.	3 "	30	Dom. Molasses Co., Ltd., Halifax.	.....
" 22	" ..	64697	T. Eaton Co., Ltd., Yonge and Queen Sts., Toronto.	3 "	45	St. Lawrence Starch Co., Port Credit	.....
" 22	" ..	64698	T. P. Lolban Stores, 228 Queen st. E., Toronto.	3cans.	45	Maples, Ltd., Toronto..	.....
" 24	" ..	64699	Ferguson Giles, 822 Yonge st., Toronto.	3 bots.	45	.....	.....
						DISTRICT OF HAMILTON—	
Mar. 2	Table Syrup	66844	J. H. Laird, Galt.....	3cans.	30	.....	Unknown .....
" 2	" ..	66845	Anderson & Beattie, Hespeler.	3 "	45	Corn Products Refining Co., New York.	W. T. Wickham, Toronto.
" 3	" ..	66846	S. B. Bricker & Co., Waterloo.	3 "	38	.....	Randall & Roos, Berlin.
" 3	" ..	66847	Durke & Co., Berlin..	3 "	50	Edwardsburg Starch Co., Cardinal.	.....
" 10	" ..	66848	J. L. Charles, Burford	3 "	45	.....	Eby Blain, Toronto.
" 10	" ..	66849	G. R. Millard, Brantford.	3 "	45	.....	Geo. Watt & Sons, Ltd., Brantford.
" 11	" ..	66850	Book Grocery Store, Beamsville.	3 "	45	.....	Balfour Smye & Co., Hamilton
" 12	" ..	66851	Powell & Co., Ltd., Dundas.	3 "	45	.....	Geo. E. Bristol & Co., Hamilton
" 12	" ..	66852	R. Clark, Dundas...	3 "	45	.....	"
" 13	" ..	66853	E. H. Soules, 99 John st. South, Hamilton.	3 "	45	St. Lawrence Sugar Refineries, Montreal.	.....

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TABLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Total Solids.	Water.	Ash.	Polarization. Direct.	Invert.	Difference.	Cane Sugar.		
Concluded.									
	p. c.	p. c.	p. c.				p. c.		
....	See	Sample	Nos.	3763	64694	... ..	.....	66542	Chiefly glucose.
....		"		3763	64694	.....	.....	66543	"
... .		"		3763	64694	.....	.....	66544	"
....		"		3763	64694	.....	.....	66545	"
H. J. DAGER, INSPECTOR.									
Sailor Boy..... ..	76·05	23·95	0 68	+149·6	+146·3	3·3	2·5	64690	Chiefly glucose.
Karo.....	76 30	23·70	0·43	+151·4	+139 3	12·1	9·1	64691	"
Bee Hive.....	See	Sample	Nos.	63900	52100	.....	... .	64692	"
Crystal Diamond.....	78·70	21·30	4·28	+ 69 6	+ 34 3	35·3	26·6	64693	Cane sugar and glucose.
Crown Brand	77·20	22·80	0 79	+156·6	+152·5	4·1	3 1	64694	Chiefly glucose.
Lyle's Golden Syrup ..	See	Sample	Nos.	66844	63993	....	. .	64695	Cane sugar syrup.
Golden Sling.....		"		53185	52104	.	.....	64696	"
White Clover	77·40	22·60	0·48	+142 4	+132 0	12 4	9 4	64697	Chiefly glucose
Golden Belle.... . .	76 60	23·40	1·44	+125 6	+110 7	14 9	11·2	64698	
Bottled by Vendor....	65 80	34 20	0 18	+ 63·8	+ 20 0	83·8	63 2	64699	Cane sugar syrup.
H. J. DAGER, ACTING INSPECTOR.									
Lyle's Golden Syrup.	82 05	17 95	1 87	+ 19 9	− 23·0	42 9	32 3	66841	Cane sugar syrup.
Karo.	76 30	23 70	0 41	+ 151 4	+139 5	11 9	9 0	6684	Chiefly glucose.
Bee Hive.... .	See	Samples	Nos	63900	52100			66846	
Lily White..	76 70	23 30	0 49	+148·8	131 1	17 7	13 3	6684	Glucose and cane syrup.
Caramel Pan Cake	69 70	30 30	0 54	+117 2	+ 92 4	24 8	18 7	6684	"
Crown Brand. ..	See	Samples	Nos.	3763	64694			6684	Chiefly glucose.
Tartan Brand.	76 10	23 90	0 68	+155 6	+150 7	4 9	3 7	6685	
Sweet Sixteen	74 50	25 50	1 25	+111 4	+ 90 6	20 8	15 7	6685	Glucose and cane syrup.
Cane Sugar Syrup. . .	78 80	21 20	0 97	+ 9 2	− 23 0	32 2	24 3	6685	Cane sugar syrup.
Crystal Diamond. . . .	See	Samples	Nos	66847	64693			6685	Cane sugar and glucose.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF WINDSOR—	
1915.							
Feb. 9	Table Syrup	63990	Moylan & Moylan, St. Thomas.	3 tins.	39	St. Lawrence Starch Co.	.....
" 9	"	63991	D. H. McIntyre, St. Thomas.	3 "	45	Edwardsburg Starch Co.	.....
" 9	"	63993	R. H. Cook, St. Thomas	3 "	38	A Lyle & Sons, London, Eng.	....
" 9	"	63995	Chas. C. Raison, St. Thomas.	3 "	40	American Sugar Refining Co.	.....
" 16	"	54704	R. McIntosh, London	3 "	39	St. Lawrence Starch Co.	.....
" 16	"	54705	H. Beren, London	3 "	30	A. Lyle & Sons, London, Eng.	.....
" 16	"	54709	Wyckoff & Gafney, London.	3 "	45	Can. Starch Co., Cardinal.	.....
" 16	"	54712	Alfred Cane, London South.	3 "	45	Am. Sugar Refining Co., Jersey City.	.....
" 18	"	54719	W. R. Butcher, St. Marys.	3 "	30	John Walker & Co., Greenock, Scot.	.....
						DISTRICT OF MANITOBA—	
Feb. 1	Table Syrup	53181	H. Woodley, 470 Burrows, Winnipeg.	3 cans.	45	Corn Products Refining Co., New York.	Macdonald Consolidated, Winnipeg.
" 1	" ..	53182	" "	2 lbs.	25	A. Lyle & Son, London, Eng.	"
" 1	" ..	53183	S. J. Deroche, Burrows ave., Winnipeg.	3 tins.	40	St. Lawrence Starch Co.	A. McDonald, Winnipeg.
" 1	" ..	53184	" "	3 "	40	Edwardsburg Starch Co., Ltd., Cardidal.	....
" 2	" ..	53185	Wilton & Conley, 1322 Main st., Winnipeg.	3 "	60	Dominion Molasses Co., Halifax.	....
" 2	" ..	53186	" "	3 "	45	Edwardsburg Starch Co., Cardinal.	... .
" 2	" ..	53187	Moffett & Douglas, Selkirk ave., Winnipeg.	3 "	45	St. Lawrence Starch Co., Ltd.	.....
" 2	" ..	53188	" "	3 "	65	A. Lyle & Sons, London, Eng.	....
" 3	" ..	53189	H. Carter, St. James st., Winnipeg.	3 "	45	Edwardsburg Starch Co., Ltd., Cardinal.	.....
" 3	..	53190	N. Posner, St. James st., Winnipeg.	3 "	45	" "	.....
						DISTRICT OF SASKATCHEWAN—	
Jan. 26	Table Syrup	66301	Halliday & Carlisle, Indian Head.	3 cans.	75	A. Lyle & Sons..	....
" 27	" ..	66310	Claxton Bros. & Co., Grenfell.	3 "	75	" "	Jobin & Marrin, Winnipeg.
" 27	" ..	66312	Greenless & Sons, Grenfell.	3 "	60	St. Lawrence Starch Co.	"
" 28	" ..	66319	Whitewood Supply Co., Whitewood.	3 "	45	" "	Brandon Grocery Co.

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TABLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Total Solids.	Water.	Ash.	Polarization. Direct.	Invert.	Difference.	Cane sugar.		
JNO. TALBOT, INSPECTOR.									
	p. c.	p. c.	p. c.				p. c.		
Bee Hive Corn Syrup..	79·35	20·65	0·82	+155·2	+150·5	4·7	3·5	63990	Chiefly glucose.
Lily White Corn Syrup	77·10	22·90	0·22	+149·4	+131·8	17·6	13·3	63991	Glucose and cane syrup.
Lyle's Golden Syrup..	81·35	18·65	1·67	+ 19·9	− 22·8	42·7	32·2	63993	Cane sugar syrup.
Dom. Pure Cane Sugar Syrup.	See	Samples	Nos.	54712	66852	.....	.....	63959	"
Bee Hive.....	"	"	"	63900	52100	...	.....	54704	Chiefly glucose.
Lyle's Golden Syrup..	"	"	"	66844	63993	....	.....	54705	Cane sugar syrup.
Crown Brand, Corn Syrup.	"	"	"	3763	64694	..	....	54709	Chiefly glucose.
Crystal Diamond, Pure Cane Syrup.	78·60	21·40	0·94	+ 9·8	− 23·1	32·9	24·8	54712	Cane sugar syrup.
Walker's Royal Scotch Golden Syrup.	80·50	19·50	3·33	+ 23·2	− 27·5	50·7	38·3	54719	"
A. C. LARIVIERE, INSPECTOR.									
Karo.....	74·60	25·40	1·43	+136·6	+ 130·2	6·4	4·8	53181	Chiefly glucose.
.....	See	Samples	Nos.	66844	63993	....	.....	53182	Cane sugar syrup.
Bee Hive.....		"		63900	52100	...	.....	53183	Chiefly glucose.
Corn Syrup.....		"		3763	64694	...	....	53184	"
Pure Cane Sugar Syrup	80·65	19·35	3·28	+ 37·4	− 13·9	55·1	41·5	53185	Cane sugar syrup.
Corn Syrup	See	Samples	Nos.	3763	64694	...	.....	53186	Chiefly glucose.
.....		"		63900	52100			53187	"
Lyle's Golden Syrup ..		"		66844	63993	.....	.....	53188	Cane sugar syrup.
Corn Syrup		"		3763	64694	.....	.....	53189	Chiefly glucose.
"		"		3763	64694	.....	.....	53190	"
L. H. HALL, INSPECTOR.									
Lyle's Golden Syrup ..	See	Samples	Nos.	66844	63993	.....	.....	66891	Cane sugar syrup.
....		"		66844	63993	.....	.....	66910	"
Bee Hive.....		"		63900	52100	.....	.....	66912	Chiefly glucose.
....		"		63900	52100	.....	.....	66913	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF SASKATCHEWAN—							
1915.							
Jan. 28	Table Syrup	66321	J. J. Knowler & Co., Whitewood.	3 cans.	60	B.C. Sugar Refining Co., Vancouver.	Codville Co., Brandon.
" 28	" ..	66323	R. D. McNaughton & Co., Moosomin.	3 "	45	Can. Starch Co., Cardinal.	... .
" 29	" ..	66327	J. P. Beauchamp & Co., Qu'Appelle.	3 "	60	Corn Products Refining Co., New York.	....
" 29	" ..	66328	W. A. Caswell & Co., Qu'Appelle.	3 "	60	Can. Starch Co., Cardinal.	....
Feb. 3	" ..	66347	McKinnons, Ltd., Weyburn.	3 "	60	" "	Weyburn Grocery.
" 4	" ..	66350	Curry Grocery, Moose Jaw.	3 "	60	B.C. Sugar Refining Co., Vancouver.	Codville Co., Moose Jaw.
DISTRICT OF ALBERTA—							
Mar. 12	Table Syrup	52100	Urquhart & Co., Lacombe.	3 tins.	20	St. Lawrence Starch Co.	A. McDonald, Edmonton.
" 16	"	52101	Lake & Co., Wetaskiwin.	3 "	75	Lyle & Sons, London, Eng.	....
" 19	"	52102	John Irwin & Co., Calgary.	3 "	60	Can. Starch Co., Cardinal.	....
" 19	"	52103	" "	3 "	60	B. C. Sugar Refining Co., Vancouver.	....
" 19	"	52104	" "	3 "	60	Dominion Molasses Co., Halifax.	.....
" 19	"	52105	Pryce Jones (Canada) Ltd., Calgary.	3 "	75	B. C. Sugar Refining Co., Vancouver.	.....
" 22	"	52106	Hudson's Bay Co., Calgary.	3 "	60	" "	
" 22	"	52107	" "			Can. Starch Co., Cardinal.	.....
" 22	"	52108	Geo. J. Wood, Calgary	3 "	60	Corn Products Refining Co., New York.	.....
" 22	"	52109	S. J. Freeze, Calgary..	3 "	90	B. C. Sugar Refining Co., Vancouver.	.. ..
DISTRICT OF ROCKY MOUNTAINS—							
Feb. 1	Table Syrup	61746	Bell Trading Co., Nelson, B.C.	3 tins.	60	Kelly Confection Co., Vancouver, B.C.	....
" 1	"	61747	" "	3 "	75	" "	....
" 1	"	61748	" "	3 "	60	Edwardsburg Starch Co. Cardinal.	.....
" 6	"	61750	L. C. Masson, Revelstoke, B.C.	3 "	60	Kelly Confection Co., Vancouver, B.C.	.....
6	"	61759	G. W. Bell, Revelstoke, B.C.	3 "	75	A. Lyle & Sons, London, Eng.	.....
" 10	"	61760	The S. A. F. E. Ltd., Salmon Arm, B.C.	3 "	60	B. C. Sugar Refining Co., Vancouver.	....

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TABLE SYRUP.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Total Solids.	Water.	Ash.	Polarization. Direct.	Polarization. Invert.	Polarization. Difference.	Cane sugar.		
Concluded.									
	p.c.	p.c.	p.c.			p.c.			
.....	See	Samples	Nos.	52109	52103	.....	.....	66321	Cane sugar syrup.
.....		"		3763	64694	.....	.....	66323	Chiefly glucose.
.....		"		66845	64691	.....	.....	66327	"
Edwardsburg Brand..		"		3763	64694	.....	.....	66328	"
" ..		"		3763	64694	.....	.....	66347	"
Rogers Golden Syrup..		"		52109	52103	.....	.....	66350	Cane sugar syrup.
A. W. R. MARKLEY, INSPECTOR.									
.....	78·50	21·50	0·90	+146·6	+143·2	3·4	2·6	52100	Chiefly glucose.
.....	See	Sample	Nos.	66844	63993	.....	.....	52101	Cane sugar syrup.
Corn syrup		"		3763	64694	.....	.....	52102	Chiefly glucose.
Golden Syrup	82·85	17·15	1·50	+ 19·1	- 17·3	36·4	27·4	52105	Cane sugar syrup.
Golden Sling.....	75·95	24·05	4·00	+ 42·6	- 13·2	55·8	42·0	52104	"
.....	See	Sample	Nos.	52109	52103	.....	.....	52105	"
Rogers Golden Syrup.		"		52109	52103	.....	.....	52106	"
Crown Brand.....		"		3763	64694	.....	.....	52107	Chiefly glucose.
Karo Brand.		"		66845	64691	.....	.....	52108	"
Rogers Golden Syrup.	82·90	17·10	1·46	+ 19·4	+ 17·4	36·8	27·7	52109	Cane sugar syrup.
THOS. PARKER, INSPECTOR.									
Sugar Drips	75·95	24·05	2·52	+ 87·6	+ 44·9	42·7	32·2	61744	Cane sugar and glucose.
Best Blend.....	75·60	24·40	1·87	+ 96·0	+ 44·4	51·6	39·0	61745	"
Crown.....	See	Sample	Nos.	3763	64694	.....	.....	61746	Chiefly glucose.
Confection Brand....	75·60	24·40	2·80	+ 100·4	+ 77·4	23·0	17·3	61747	Cane sugar and glucose.
.....	See	Sample	Nos.	66844	63993	.....	.....	61748	Cane sugar syrup.
Rogers		"		52109	52103	.....	.....	61749	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Furnisher.
DISTRICT OF ROCKY MOUNTAINS—							
1915.							
Feb. 10	Table Syrup	61761	The S. A. F. E. Ltd., Salmon Arm, B.C.	3 tins.	60	West Sugar Refineries, Greenock, Scot.	Leesor, Dickie & Gross, Vancouver
" 15	"	61768	Munn Bros., Kamloops, B.C	3 "	45	St. Lawrence Starch Co., Prescott.	.....
Mar. 16	"	61785	Hunter Bros., Rossland, B.C.	3 "	1.35	Ramsay's, Vancouver...	.....
" 16	"	61789	Agnew & Co., Rossland, B.C.	3 "	75	A. Lyle & Sons, London, Eng.	.....
DISTRICT OF VANCOUVER—							
Jan. 26	Table Syrup	55178	Woodward Dept. Stores, Vancouver, B.C.	1 tin.	15	B. C. Sugar Refining Co., Vancouver.	.....
" 26	" ..	55179	Edgett Stores Ltd., Vancouver, B.C.	1 "	15	Can. Starch Co., Cardinal.	.....
" 26	" ..	55180	H. Newell, 575 Hastings St. E., Vancouver, B.C.	1 "	15	Ramsays Bros. & Co., Ltd., Vancouver.	.....
" 26	" ..	55181	Exenos & Daldas, 800 Hastings St. E., Vancouver, B.C.	1 "	15	A. Lyle & Sons, London, Eng.	.....
" 26	" ..	55182	John Gogowris, 546 Prinsess Ave., Vancouver, B.C.	1 "	15	Kelly Confection Co. Ltd., Vancouver.	.....
" 27	" ..	55183	Peter Torrance, 898 Keefer St., Vancouver, B.C.	1 "	15	Corn Products Refining Co., New York.	.....
" 28	" ..	55184	David Spencer Ltd., Vancouver, B.C.	1 "	15	St Lawrence Starch Co.	.....
" 28	" ..	55185	Hudson's Bay Co., Vancouver, B.C.	1 "	30	Pacific Coast Syrup Co., San Francisco.	.....
" 29	" ..	55186	C. A. Welch Ltd., 681 Columbia St., New Westminster, B.C.	1 "	35	Ramsay Bros. & Co., Ltd., Vancouver.	.....
" 29	" ..	55187	" "	1 "	30	Kelly Confections Co. Ltd., Vancouver.	.....
DISTRICT OF VICTORIA—							
Feb. 9	Table Syrup	62041	Windsor Grocery Co., Victoria, B.C.	1 pt.	20	B.C. Sugar Refining Co., Vancouver.	.....
" 9	" ..	62042	" "	1 qt.	35	Pacific Coast Syrup Co., San Francisco.	.....
" 9	" ..	62045	West End Grocery Co. Ltd., Victoria, B.C.	1 tin.	20	A. Lyle & Sons, London Eng.	.....
" 10	" ..	62047	F. E. Plummer, Victoria, B.C.	2 lb.	25	.....	R. P. Rithet & Co., Victoria., B.C.

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TABLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Aanlysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Total Solids.	Water.	Ash.	Polarization. Direct.	Invert.	Difference.	Cane Sugar.		
Concluded.									
	p. c.	p. c.	p. c.				p. c.		
....	80 75	19 25	0·75	+ 27·9	- 14·4	42·3	31·9	61761	"
....	See	Sample	Nos.	63900	52100	... .	...	61768	Chiefly glucose.
Imperial.....	66·75	33·25	0·10	+ 62·8	- 20·8	83 6	63·1	61785	Cane sugar syrup.
....	See	Sample	Nos.	66844	63993	.....	...	61789	"

E. J. MORGAN, INSPECTOR.

Rogers Golden Syrup.	See	Sample	Nos.	52100	52103	.	.	55178	Cane sugar syrup.
Crown Brand. Corn Syrup,	"	"	"	3763	64694	. .	...	55179	Chiefly glucose.
Manilla Golden Drips	77·30	23 30	1 48	- 98 7	+ 40·8	57 9	43 6	55180	Cane sugar and glu cose.
Lyles Golden Syrup. .	See	Sample	Nos.	66844	63993	. .	.	55181	Cane sugar syrup.
Confection Brand Corn and Sugar Refiner Syrup.	72 60	27 40	2 66	- 108 6	+ 95·0	13·0	9 8	55182	Chiefly glucose.
Karo..... ...	See	Sample	Nos.	66845	64691	..		55183	"
Bee Hive, 90% Corn, 10% Cane.	"	"	"	63900	52100			55184	"
Tea Garden Brand, Sugar and Corn Syrup	74 90	25 10	1 55	+ 89 1	+ 33 2	56 2	42 3	55185	Cane sugar and glu cose.
Imperial Brand .	64 95	35 05	0 22	- 50 0	— 21·0	71 0	53 5	55186	Cane sugar syrup
Best Blend, Corn and Sugar Cane Syrup.	74 65	25 35	2 26	- 80 0	- 23 8	56 2	42 3	55187	Cane sugar and glu cose.

D. O. SULLIVAN, INSPECTOR.

Rogers Golden Syrup.	See	Sample	Nos.	52100	52103			62041	Cane sugar syrup.
Tea Garden Brand .	74 45	25 55	1 30	+ 82 6	- 30 6	42 0	30 2	62042	Cane sugar and glu cose.
Lyles Golden Syrup	See	Sample	Nos.	66844	63993			62043	Cane sugar syrup.
" "	"	"	"	66844	63993			62047	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF VICTORIA—				
1915.							
Feb. 10	Table Syrup	62050	Henry W. Driver, Gates St., Victoria, B.C.	2 lb.	15	Can. Starch Co., Cardinal.	... .
" 11	" ..	62052	Fairfield Grocery, Victoria, B.C.	2 "	15	B.C. Sugar Refining Co., Vancouver.	.....
" 11	" ..	62054	Linden Grocery, Victoria, B.C.	2 "	15	Corn Products Refining Co., New York.	... .
" 11	" ..	62055	" "	2· "	15	St. Lawrence Starch Co., Port Credit.	.. ..
" 12	" ..	62060	Dixi H. Ross, Victoria, B.C.	1 qt.	35	Pacific Coast Syrup Co., Seattle.	....
" 12	" ..	62064	Copas & Young, Victoria, B.C.	1 "	25	Ramsay Bros. & Co., Vancouver.	.. . .

SESSIONAL PAPER No. 14

TABLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Total Solids.	Water.	Ash.	Polarization.			Cane sugar.		
				Direct.	Invert.	Difference.			

Concluded.

	p c.	p.c.	p.c.				p.c.		
Crown Brand.	See	Sample	Nos.	3765	64694	.....	... .	62050	Chiefly glucose,
Rogers Golden Syrup.	"	"	"	52109	52103	.....	.....	62052	Cane sugar syrup.
Karo	"	"	"	66845	64691	....	...	62054	Chiefly glucose.
Bee Hive.....	"	"	"	63900	52100	... .	.....	62055	" "
....	73·75	26·25	1·12	+ 91·6	+36·1	55·5	41·9	62060	Cane sugar and glucose.
Manilla Golden Drips.	72·00	28·00	1·96	+ 73·2	+ 8·1	65·1	49·1	62064	Cane sugar and some glucose

APPENDIX L.

BULLETIN No. 321—LIME JUICE.

OTTAWA, September 1, 1915.

J. U. VINCENT, Esq.,
Deputy Minister, Inland Revenue.

SIR,—I beg to hand you herewith a report upon eighty-three (83) samples purchased as Lime Juice by our inspectors in April, May and June of this year. This inspection was undertaken in consequence of complaints to the effect that this article was extensively adulterated, in the sense of being much below the legal standards for Lime Juice.

By Order in Council of 28th January last, the following standards were legalized, as under Section 26 of the Adulteration Act.

> Lime Juice, Lime Fruit Juice, is the freshly expressed juice of the ripe fruit of Citrus (various species; and has a specific gravity at 20° C. of not less than 1·030 and not greater than 1·040, and contains not less than eight (8) per cent of solids and not less than seven (7) per cent of free citric acid. Its optical activity (rotatory power to polarized light) lies between the limits of +0.5° and —1.0° of the Soleil-Ventzke scale, when observed in a column of 200 mm. length at 20° C.

These standards only differ from those established by Order in Council of 11th February, 1911, in the following particulars:—

1. Recognizes various species of Citrus instead of *C. limetta* only, as sources.
2. Fixes 8 per cent solids instead of 10 per cent as in the earlier standards.
3. An optical activity between the limits of +0.5° and —1.0° is recognized, instead of +0.5° to —0.5° as in the Order in Council of 1911.

These changes have the effect of making the standards less exacting than formerly, in consequence of which any failures to meet existing standards are less excusable.

The results of this inspection may be summarized as follows:—

Found genuine	40	samples.
Found nearly genuine, and passed as acceptable	14	"
Found not sold as Lime Juice	2	"
Found adulterated, as departing notably from the legal standard	27	"
Total	83	"

It will be noted that 43 samples contain preservatives, benzoic, salicylic or sulphurous acids. In none of these cases is any statement declaring the presence of a preservative, made upon the label. This is in violation of Order in Council dated 4th April, 1914, (published as Circular G. 1111) which requires that, preservatives of the class which includes those above named, shall be declared on the label, when

present. This Order in Council further limits the amount of preservative which may be present, and requires that not more than one kind of preservative shall be added to any one kind of food, or to any mixture of two or more kinds of food.

The limits fixed as regards Lime Juice are as follows:—

Benzoic acid:	1 part in 1,000 parts.
Salicylic acid:	1 part in 5,000 parts.
Sulphurous acid	1 part in 10,000 parts.

Three samples (55266, 66730 and 66738) violate these limits by containing more than one preservative each. Two samples (52160 and 61835) violate these limits by containing more than the permitted amount of the preservative present.

In most cases, the amount of preservative present is well within the prescribed limit, and in many cases, is properly described as a trace only, and therefore negligible.

On account of the long established usage of preservative in this article and the comparatively recent enactment of standards in regard to preservatives, I would recommend that samples otherwise genuine, be treated leniently so far as declaration is concerned; but with the understanding that, after this notification and warning all violations of departmental requirements will be strictly dealt with.

I beg to recommend publication of this report as Bulletin No. 321.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

BULLETIN No. 321—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1915.							
June 25	Lime Juice...	54061	Wentzell's, Ltd., Halifax, N.S.	3 bots.	75	Howard M'fg. Co., Halifax.	Mfrs . .. .
" 25	" ...	54062	Knoche & Nicolle, Halifax, N.S.	3 "	75	Francis Drake, New Glasgow.	A. & W. Smith Co., Halifax.
" 25	" . .	54063	W. P. Meyer, Halifax, N.S.	3 "	45	E. S. Tracey M'fg. Co., Halifax.	Mfr ... .
July 1	" ...	54064	E. P. Theriault, Weymouth.	3 "	75	Nat. Drug and Chem. Co., St. John, N.B.	" .....
" 13	" ...	54065	B. O. Bishop, Dartmouth.	3 "	45	Howard M'fg. Co , Halifax.	Wentzell's Ltd., Halifax.
DISTRICT OF NOVA SCOTIA—							
June 4	Lime Juice...	65860	A. J. Roop, New Glasgow.	3 bots.	75	L. Rose & Co., London, Eng.	.....
" 4	" ...	65861	A. A. McDonald, New-Glasgow.	3 "	45	Nat. Drug Co., Halifax.	....
DISTRICT OF PRINCE EDWARD ISLAND—							
Apr. 30	Lime Juice...	60180	J. G. Passmore, Charlottetown.	3 bots.	36	Nat. Drug and Chem. Co., Halifax.	....
" 30	" ...	60181	" " ..	3 "	60	....	R. E. Mutch & Co., Charlottetown.
May 7	" ...	60182	W. W. Walker, Charlottetown.	3 "	75	L. Rose & Co., London, Eng.	....
DISTRICT OF NEW BRUNSWICK—							
May 10	Lime Juice...	66086	Nat. Drug and Chem. Co., St. John.	3 "	45	....	Nat. Drug and Chem. Co., Montreal.
" 13	" ...	66087	The Can. Drug. Co., Ltd., St. John.	3 "	25	....	G. P. Mitchell & Son, Halifax.
" 17	" ...	66088	Baird & Peters, St. John.	3 "	100	....	Nat. Drug. and Chem. Co., St. John.
" 18	" ...	66089	G. E. Barbour Co., Ltd., St. John.	3 "	30	Vendors..	.....
" 26	..	66090	The Baird Co Ltd., Woodstock	3 "	40	"	....

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LIME JUICE.

Inspector's Report. (Is not an expression of Opinion).	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. of Juice.	Total Solids.	Acidity as Citric Acid.	Rotation (2 dm.)	Found.		
R. J. WAUGH, INSPECTOR.							
		p. c.	p. c.				
....	1·0449	8·58	5·21	+ 0·2	Trace salicylic acid.	54061	Citric acid, below standard. Adulterated.
....	1·0278	6·74	6·02	+ 1·0	....	54062	" "
Gold Medal Brand..	1·0223	5·32	5·11	+ 0·5	Salicylic acid.	54063	" "
....	1·0405	9·83	8·89	- 0·1	"	54064	Genuine, with a preservative.
....	1·0305	7·43	7·00	+ 0·2	Trace salicylic acid.	54065	Solids slightly low. Pass.
W. A. PETIPAS, TEMPORARY INSPECTOR.							
....	1·0357	8·48	8·15	- 0·3	....	65860	Genuine.
... .	1·0379	9·10	8·43	- 0·4	Trace salicylic acid.	65861	"
WM. A. WEEKS, INSPECTOR.							
....	1·0383	9·14	8·47	- 0·6	Trace salicylic acid.	60180	Genuine.
. ...	1·0382	9·12	8·51	- 0·4	" . .	60181	"
....	1·0357	8·50	8·12	- 0·3	.....	60182	"
JOHN C. FERGUSON, INSPECTOR							
....	1·0359	8·64	8·12	- 0·4	....	60186	Genuine.
....	1·0530	12·12	10·18	+ 0·3	Salicylic acid	60187	" exceptional strength.
....	1·0350	8·38	8·01	- 0·2	.....	60188	"
....	1·0397	9·30	8·71	- 0·4	Trace salicylic acid.	60189	"
....	1·0392	9·30	8·61	- 0·4	.....	60190	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF QUEBEC CITY—				
1915.							
April 20	Lime Juice....	56395	O. Lacroix, 19 rue St. Joseph, Quebec.	3 bots.	30	T. A. Lytle Co., Toronto.	Turcotte & Frere
" 20	" ..	56396	" "	3 "	75	L. Rose, London ..	J. B. Renaud & Cie.
" 20	" ..	56397	Elz. Turcotte, 74 Desfoses, Quebec.	3 "	1.50	Montserrat Co. Ltd., England.	Unknown ... .
" 20	" ..	56398	" "	3 "	75	Dalton Bros., Toronto.	" .. ....
" 20	" ..	56399	" "	3 "	30	L. Rose Co. Ltd., London.	J. B. Renaud & Cie.
			DISTRICT OF QUEBEC PROVINCE—				
May 4	Lime Juice....	282	F. D. Hall, Ste Agathe des Monts.	3 bots.	60	L. Rose & Co. Ltd.	....
" 22	" ..	56458	Fraserville Drug Co., Fraserville.	3 "	1.50	....	Lymans Ltd., Montreal.
" 22	" ..	56461	Damien & Cie, Fraserville.	3 "	45	Sutcliffe & Bingham, Ltd.	....
June 1	" ..	56464	T. Therriault, Fraserville.	3 "	90	L. Rose & Co., Ltd., London.	....
			DISTRICT OF THREE RIVERS—				
May 21	Lime Juice....	67957	A. C. Duff, Charlemagne.	3 bots.	75	N. D. & C. Co., Montreal.	....
" 28	" ..	69107	Bellefeuille Giroux, Three Rivers.	3 "	1.20	L. Rose & Co., Ltd., London.	....
" 29	" ..	69108	O. Carignan & Fils, Three Rivers.	3 "	1.05	Evan Sons, Lescher & Webb.	N. D. & C. Co., Montreal.
June 1	" ..	69114	J. A. Boisvert, Joliette...	3 "	75	L. Rose & Co., Ltd., London.	Laporte & Martin, Montreal.
			DISTRICT OF MONTREAL—				
May 7	Lime Juice....	62596	Vianville Cash Grocery, 89 St. Catherine street, Maisonneuve.	3 bots.	30	Green & Co., Toronto.	....
" 17	" ..	62597	P. H. Theoret, 71 Vitre st. E., Montreal.	3 "	1.05	Fusbury Distillery Co., London.	....
" 19	" ..	62598	The Royal George Grocery, 221 Bernard ave., Montreal.	3 "	30	L. Rose & Co., Ltd., London.	....
June 7	" ..	62599	Dr. Champagne, 1314 Wellington st., Verdun	3 "	45	....	Lymans Ltd....
" 9	" ..	62600	Louis Montplaiser, 582 St. Catharine st., Maisonneuve.	3 "	45	T. A. Lytle Co., Ltd., Toronto.	....
			DISTRICT OF VALLEYFIELD—				
June 9	" ..	57946	J. E. Baillargeon, Farnham.	3 bots.	60	Dalton Bros., Toronto.	.....

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LIME JUICE.

Inspector's Report (is not an expression of opinion.)	Results of Analysis. Sp. gr. of Juice.	Total solids.	Acidity as citric acid.	Rotation (2 dm.)	Found.	No. of Sample.	Remarks, and Opinion of the Chief Analyst.
F. X. W. E. BELAND, INSPECTOR.							
		p. c.	p. c.				
.....	1·0339	7·90	7·17	+ 0·6	Benzoic acid.....	56395	Genuine, with a preservative.
....	1·0364	8·72	8·12	− 0·5	....	56396	Genuine.
....	1·1258	31·08	1·99	−37·8	....	56397	Sugared and watered. Sold as a cordial and not as lime juice.
....	1·0119	9·78	7·49	− 2·2	Benzoic acid .	56398	Genuine, with a preservative.
....	1·0348	8·36	7·98	− 0·4	....	56399	Genuine.
N. CADIEUX AND A. PELLETIER, TEMPORARY INSPECTORS.							
....	1·0356	8·40	7·91	0·0	... .	282	Genuine.
....	1·0235	6·90	6·40	+ 0·1	Salicylic acid.....	56458	Solids and citric acid below standard. Adulterated.
... .	1·0262	6·32	6·02	− 0·3	"	56461	" "
....	1·0349	8·49	7·91	− 0·5	....	56464	Genuine.
Dr. V. P. LAVALLEE, INSPECTOR.							
....	1·0320	6·89	7·28	0·0	. . . .	67957	Solids somewhat low. Pass.
....	1·0318	8·13	8·12	0·0	... ...	69107	Genuine.
....	1·0356	8·48	7·84	0·0	....	69108	"
. . . .	1·0354	8·25	8·12	0·0	. . ..	69114	"
D. J. KEARNEY, INSPECTOR.							
.. ..	1·0516	12·23	1·40	−13·80	Salicylic acid... .	62296	Sold as a lime juice cordial; not as lime juice.
... .	1·0370	7·81	7·21	0·0	....	62297	Genuine.
. . ..	1·0351	7·31	8·12	0·0	.....	62298	Solids slightly low; pass.
.	1·0326	6·86	7·28	0·0	Benzoic acid	62299	. . with preservative.
....	1·0331	6·88	6·72	0·0	.	62300	Solids slightly low; pass.
J. J. COSTIGAN, ACTING INSPECTOR.							
.....	1·0361	12·47	8·47	6·30	Benzoic acid	5791	Contains sugar. Otherwise genuine, with preservative. Pass.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF OTTAWA—				
1915.							
April 24	Lime Juice...	63618	Casselman Bros., Morrisburg.	1 bot.	35	The Turner Co., Ltd., Toronto.	. . ..
" 30	" ...	63639	Jos. Grant, York street, Ottawa.	3 "	75	T. A. Lytle Co , Ltd., Toronto.	.....
May 4	" ...	63653	The F. J. Castle Co. Ltd , Wellington st., Ottawa.	1 "	19	. .....	N. D. & C. Co., Ottawa.
			DISTRICT OF KINGSTON—				
April 28	Lime Juice....	68041	T. H. Sargent, Kingston..	3 bots.	75	E. G. West & Co., Toronto.	....
" 28	" ...	68042	A. P. Chown, Kingston.	3 "	90	....	....
" 28	" ...	68043	Geo. A. Mahood, Kingston	3 "	90	Lymans Ltd., Montreal.	.. ..
" 29	" ...	68044	A. Glover, Kingston.	3 "	75	L. Rose & Co., London.	....
May 4	" ...	68045	D. G. Bleeker. Belleville.	3 "	105	Davis & Lawrence Co., Montreal.	.....
			DISTRICT OF TORONTO—				
May 11	Lime Juice....	67069	R. A. Mason, Markham..	3 bots.	78	Sutcliffe & Bingham, Ltd., Manchester, Eng.	....
" 13	" ...	67070	W. H. Parr, Beaverton...	3 "	75	Dalton Bros., Toronto.	... .
" 15	" ...	67071	The Playfair Preston Co., Midland.	3 "	45	T. A. Lytle Co., Toronto.	... .
" 20	" ..	67073	C. B. Shield, 1417 Queen street, W. Toronto.	3 "	105	Rowatt & Co., Glasgow.	.....
" 20	" ...	67076	E. C. Brown, 2489 Yonge street, Toronto.	3 "	45	E. G. West & Co., Toronto.	....
			DISTRICT OF HAMILTON—				
April 26	Lime Juice....	66988	J. C. Hadden, Guelph ...	3 bots.	75	G. F. Sutton Sons & Co., London, Eng.	Unknown. .....
" 26	" ...	66990	G. M. Jamieson, Fergus..	3 "	75	Dalton Brothers, Toronto.	.. ..
" 27	" ...	66991	H. E. Yeomen, Mount Forest.	3 "	75	Rowatt & Co., Glasgow.	Unknown. ....
May 5	" ...	66992	Stanley Mills & Co., 11 King st., E. Hamilton.	3 "	30	Sutcliffe & Bingham, Ltd., Manchester, Eng.	....
" 5	" ...	66993	Peebles Hobson & Co., King and McNabb sts.. Hamilton.	3 "	75	R. Fry & Co., Brighton.	.....
June 5	" ...	67086	Stanley Mills & Co., 11 King st., E. Hamilton.	3 "	105	Sutcliffe & Bingham, Ltd., Manchester, Eng.	....
" 5	" ...	67087	Peebles Hobson & Co., 40 King st., W. Hamilton.	3 "	75	R. Fry & Co., Brighton.	... .

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LIME JUICE.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. of Juice.	Total solids.	Acidity as citric acid.	Rotation (2 dm.)	Found.		
J. A. RICKEY, INSPECTOR.							
		p.c.	p.c.				
Turner's Lime Juice.	1·0282	6·30	6·23	0·0	.....	63618	Below standard. Adulterated.
Sterling Brand.....	1·0282	6 33	6·09	0·0	....	63639	" " "
Olympia, quality guaranteed.	1·0347	7·83	7·49	0·0	.. ..	63653	Genuine.
JAMES HOGAN, INSPECTOR.							
....	1·0348	7·55	7 21	0 0	... .	68041	Solids slightly low. Pass.
Olympia Brand.....	1·0289	6·27	6·65	0 0	.....	68042	Solids and citric acid low. Adulterated.
....	1·0334	8·19	8·05	0 0	Benzoic.....	68043	Genuine, with a preservative.
....	1·0334	7·86	7·77	0·0	.. ..	68044	Genuine.
....	1·0304	6 91	7·14	0·0	....	68045	Solids slightly low Pass.
H. J. DAGER, INSPECTOR.							
Kkovah Lime Juice..	1·0270	6 28	6 23	0 0	Salicylic	67069	Below standard. Adulterated.
Dalton's West India Lime Juice.	1 0584	13 88	5·46	– 9 2	Benzoic..... .	67070	Contains added sugar. Adulterated, as below legal acid strength.
Sterling Brand .	1 0296	6 87	6 30	0 0	. . ..	67071	Below standard. Adulterated.
....	1 0260	6·12	5 53	0 0	....	67073	— — —
Royal Crest	1 0393	9 23	8 40	0 0	....	67076	Genuine.
H. J DAGER, ACTING INSPECTOR							
.. . .	1 0282	6·50	6 41	0 0	Salicylic	66988	Below standard Adulterated
....	1·0531	12 25	7 91	– 5 4	Benzoic	66989	Contains sugar Otherwise genuine, with preservative. Pass
....	1 0360	7 10	6 51	0 0		66991	Solids and acid low Adulterated.
Kkovah Lime Juice.	1 0274	6 29	5 88	0 0	Salicylic	66992	— — —
Labelled Pure Lime Juice	1 0357	8 39	7 98	0 0		66993	Genuine.
Kkovah Pure Lime Juice.	1 0318	7 48	7 01	0 0	Salicylic	67086	Solids somewhat low Pass
Labelled Pure Lime Juice	1 0360	8 40	7 91	0 0		67087	Genuine.

BULLETIN No. 321—

Date of Collection.	Name of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
							DISTRICT OF WINDSOR—
1915.							
Apr. 21	Lime Juice....	54766	J. P. Sheppard, Clinton..	3 bts.	1.20	Montserrat Co. Ltd., London E.	... .
" 23	" ...	54789	Dicksons, St. Mary's.....	3 "	75	Imperial Extract Co. Toronto.	....
" 23	" ...	54791	F. W. Hutton, St. Mary's	3 "	30	L. Rose & Co. Ltd. London, Eng.	....
" 25	" ...	54794	Standard Drug Co., London	3 "	75	Nat. Drug Co., Canada.	....
							DISTRICT OF MANITOBA—
May 18	Lime Juice....	61282	The Minnedosa Pharmacy Minnedosa.	3 bts.	1.05	The Bole Drug Co. Winnipeg.	....
" 18	" ...	61233	P. W. Hutton, Minnedosa	3 "	1.00	Western Mfg. Co., Winnipeg.	....
" 19	" ...	61284	J. A. Dunkin, Portage-la-Praire.	3 "	45	The Bole Drug Co. Winnipeg.	. . . .
" 25	" ...	61285	J. Paterson, Winnipeg....	3 "	75	The White Star Mfg. Co. Winnipeg.	.....
" 25	" ...	61286	" " ...	3 "	75	The Blackwoods Ltd. Winnipeg	....
							DISTRICT OF ALBERTA—
Apr. 30	Lime Juice....	52157	Hudson's Bay Co. Edmonton.	3 bts.	90	Imperial Extract Co. Toronto.	....
May 1	" ...	52158	J. H. Morris, Edmonton.	3 "	45	White Star Mfg. Co. Winnipeg.	.....
" 20	" ..	52159	Wendell Maclean, Calgary	3 "	1.05	G. F. Sutton Sons & Co. London E.	....
" 21	" ...	52160	Nat. Drug & Chem. Co Calgary.	3 "	1.15	Vendors	... .
June 17	" ...	52161	Geo. Kerr, Lethbridge....	3 "	1.05	L. Rose & Co. Ltd. London, Eng.	....
							DISTRICT OF ROCKY MOUNTAINS—
Apr. 26	Lime Juice....	61864	E. W. Hazlewood, Trail.	3 bts.	1.50	Nat. Drug & Chem. Co. Vancouver.	....
May 20	" . .	61821	Sun Grocery Co. Cranbrook.	3 "	1.05	Imperial Extract Co. Toronto.	Jobbers Limited Cranbrook.
June 10	" ...	61829	A. Hobson, Revelstoke...	3 "	1.50	Kelly Douglrs & Co Vancouver.	....
" 10	" ...	61835	L. C. Masson, " ...	3 "	1.50	W. H. Malkin Co. Vancouver.	....
" 10	" ...	61836	" " ..	3 "	2.25	Kops Breweries London, Eng.	.....

SESSIONAL PAPER No. 14

LIME JUICE.

Inspector's Report (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and opinions of the Chief Analyst.
	Sp. gr. of Juice.	Total solids.	Acidity as Citric Acid.	Rotation in 2 dm.	Found.		
JOHN TALBOT, INSPECTOR.							
		p. c.	p. c.				
Montserrat Lime Fruit Juice.	1·0352	8·07	7 91	0·0	....	54766	Genuine.
Yacht Club.. .. .	1 0237	5·56	5·67	0·0	Salicylic...	54789	Below standard. Adulterated.
Rose Prepared West India Lime Juice.	1·0360	8·47	8 05	0·0	....	54791	Genuine.
Olympia.....	1·0320	7·44	7 35	0 0	....	54794	Solids somewhat low. Pass.
A. C. LARIVIÈRE, INSPECTOR.							
....	1·0311	7·76	6 93	−0·4	....	61282	Genuine.
.....	1 0192	4·00	3·50	+0 4	Salicylic	61283	Below standard. Adulterated.
....	1 0400	8·60	6 65	−0 1	. .. .	61284	Acid slightly low. Pass.
....	1·0310	7·46	6 93	−0·5	... .	61285	Solids slightly low. Pass.
... .	1·0321	7 65	7 14	−0·6	. . ..	61286	"
A. W. R. MARKLEY, INSPECTOR.							
Imperial..... .	1 0205	6·41	5 16	−0 4	Contains artifical colouring.	52157	Below standard. Adulterated.
White Star.	1 0305	8 56	6 72	−0 4	Salicylic acid 0 30 pts per 5000.	52158	Genuine, with preservative.
West Indian	1 0268	7 73	5 69	−0 3	Salicylic acid 0 65 pts per 5000	52159	Below standard. Adulterated.
Sovereign	1 0322	8 76	7 03	−0 3	Sulphurous acid 3 12 pts per 10,000	52160	Genuine, with preservative in excess.
Rose's	1 0357	9 37	7 85	−0 4	Sulphurous acid 0 05 pts per 10,000.	52161	
THOS. PARKER, INSPECTOR							
... .	1 0200	5 93	4 65	−0 3	Salicylic acid 0 10 pts per 5000	61801	Below standard. Adulterated.
Yacht Club .	1 0189	5 51	4 21	−0 2	Salicylic acid 0 05 pts per 5000	61821	
Naboh .	1 0311	9 10	7 60	−0 6	Sulphurous acid 0 10 pts per 10,000	61822	Genuine, with preservative.
	1 0353	9 47	7 80	−0 2	Salicylic acid 2 00 pts per 5000	61823	Genuine, with preservative in excess.
....	1 0315	8 65	7 00	−0 6	Sulphurous acid 0 07 pts per 10,000	61830	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF VANCOUVER—				
1915.							
May 22	Lime Juice....	55266	Cochrane & Elliott, 657 15th Ave., E. Vancouver	3 bots.	75	Leesor, Dickie, Gross & Co., Ltd., Vancouver.	.....
" 22	" ..	55267	G. W. Bennett, 761 Kingsway, E. Vancouver.	3 "	75	Kelly, Douglas & Co., Ltd., Vancouver.	....
" 25	" ..	55268	B. C. Market Co., 924 Grenville St., E. Vancouver.	3 "	75	Pure Fruit Packing Co., Vancouver.	.....
" 26	" ..	55269	Knight Bros., 11th Ave. and Commercial Drive, E. Vancouver.	3 "	120	W. H. Malkin Co., Ltd., Vancouver.	.....
" 27	" ..	55270	Annandale Supply Co., Columbia St., New Westminster.	3 "	75	Imperial Extract Co., Toronto.	....
			DISTRICT OF VICTORIA—				
June 9	Lime Juice....	66727	H. O. Kirkham & Co., 741 Fort St., Victoria.	3 pts.	75	L. Ross & Co., Ltd., London, Eng.	.....
" 9	" ..	66730	Henry W. Driver, 856 Yates St., Victoria.	3 qts.	75	....	The Pure Fruit Packing Co., Vancouver.
" 11	" ..	66738	Geo. A. Fraser & Co., 914 Government St., Victoria.	3 bot.	75	.....	N. D. & C. Co. Victoria.
" 11	" ..	66740	F. J. Williams, 613 Fort St., Victoria.	3 pts.	75	Alex. Riddle & Co., Ltd., London, Eng.	.....
" 15	" ..	66749	Ivel's Pharmacy, 1415 Government St., Victoria.	3 bots.	75	W. A. Ross & Bro., Belfast, Ireland.	.....

SESSIONAL PAPER No. 14

LIME JUICE.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis. Sp. gr. of Juice.	Total Solids.	Acidity as Citric Acid.	Rotation (2 dm.)	Found.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
E. J. MORGAN, INSPECTOR.							
		p. c.	p. c.				
Labelled Finest West India Lime Juice.	1·0189	5·60	4·29	– 0·2	Salicylic acid 0·55 pts. per 5,000. Sulphurous acid 0·02 pts. per 10,000.	55266	Below standard. Adulterated. Contains two preservatives.
Columbia Brand ...	1·0159	5·16	3·60	– 0·1	Sulphurous acid 0·06 pts. per 10,000.	55267	Below standard. Adulterated.
Labelled Pure Fruit Lime Juice.	1·0112	3·66	2·54	+ 0·2	Salicylic acid 0·70 pts. per 5,000.	55268	" "
Victoria Cross Brand	1·0346	9·27	7·69	0·0	Sulphurous acid 0·22 pts. per 10,000.	55269	Genuine, with preservative.
Yacht Club..... ..	1·0081	3·36	2·10	+ 0·3	Artificial colouring.	55270	Below standard. Adulterated.
D. O'SULLIVAN, INSPECTOR.							
Rose's Prepared West India Lime Juice.	1·0357	9·91	7·70	– 0·9	Sulphurous acid 0·10 pts. per 10,000.	66727	Genuine, with preservative.
Pure Fruit Lime Juice.	1·0165	5·05	3·70	– 0·1	Salicylic acid 2·75 pts. per 10,000. Sulphurous acid 0·07 pts. per 10,000.	66730	Below standard. Adulterated. Contains two preservatives.
....	1·0196	5·58	4·55	– 0·2	Salicylic acid 0·50 pts. per 5,000. Sulphurous acid 1·01 pts. per 10,000.	66738	Below standard. Adulterated.
....	1·0329	8·38	7·12	0·0	Sulphurous acid 0·94 pts. per 10,000.	66740	Genuine, with preservative.
....	1·0337	8·89	7·54	– 0·9	Salicylic acid 0·35 pts. per 5,000.	66749	" "

APPENDIX M.

BULLETIN No. 322—MAPLE CONFECTIONS.

OTTAWA, 17th. November, 1915.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to hand you a report dealing with fifty-eight (58) samples of confections, characterized as maple products, by use of the word maple in the name under which they are sold.

Maple Sugar and Maple Syrup are defined by an Order in Council of 20 March, 1911 (published as Circular G. 994), effective from 27 November, 1911; and by an Amendment to the Adulteration Act, assented to, 12 June, 1914, and effective from 1 January, 1915 (published as Circular G. 1152.)

These articles have frequently been made the subject of inspection, the last report upon Maple Sugar having been published as Bulletin No. 258, in April 1913 and that upon Maple Syrup, as Bulletin No. 259, also in April, 1913.

A further amendment to the Act was assented to on the 15th. April of this year, and this Amendment takes cognizance of other maple products than sugar and syrup, and restricts the use of the word *maple* to sugar and syrup. The text of this amendment, so far as maple products are concerned, is as follows:—

1. Section 29*a* of the Adulteration Act, Chapter 133 of the Revised Statutes, 1906, as enacted by chapter 19 of the statutes of 1914, is repealed and the following is substituted therefor:—

MANUFACTURE OR SALE OF ADULTERATED MAPLE SUGAR OR SYRUP.

"29*a*. No person shall manufacture for sale, keep for sale, offer or expose for sale, or sell, any article of food resembling or being an imitation of maple sugar or maple syrup, or which is composed partly of maple sugar or maple syrup, and which is not pure maple sugar or pure maple syrup.

ADULTERATED MAPLE SUGAR OR SYRUP DEFINED.

"2. Any maple sugar or maple syrup which is not up to the standard prescribed by the sixth schedule to this Act, or, if such standard is changed by the Governor in Council, to such standard as the Governor in Council may from time to time prescribe, shall be deemed to be adulterated within the meaning of this Act."

USE OF THE WORD "MAPLE" RESTRICTED TO PURE MAPLE SUGAR OR SYRUP.

"3. The word "maple" shall not be used, either alone or in combination with any other word or words, or letter or letters, on the label or other mark, illustration or device on a package containing any article of food, or on any article of food itself, which is not pure maple sugar or pure maple syrup, and any article of food labelled or marked in violation of this subsection shall be deemed to be adulterated within the meaning of this Act."

The order for collection of the articles now reported was issued on the 13th. April of this year, that is, before the last named amendment came into force; and for this reason, none of the samples are judged as adulterated. The object had in view from this inspection, was the ascertainment of the extent to which the word maple is actually in use as a designation of maple products other than sugar and syrup.

The result shows that, of the fifty-eight (58) samples reported, twenty-five (25) are sold as maple butter, five as maple cream and five as maple cheese. It is probable that in most of these cases, the employment of the words butter, cream and cheese, has regard primarily to the consistence of the article and is not intended to convey the idea that butter, cream or cheese enters into the composition of the confection.

A possible exception to this statement is found in an article of Maple Butter, manufactured by Maples, Limited, of Toronto. The label borne by this article contains the following:—

"Wholesome and delicious food luxury, made from pure Maple Sugar and fresh rich cream. For table use, in place of ordinary butter or jam; a superior substitute at less cost."

These statements appear to claim for the article an actual butter content. We find only 0·12 per cent of butter fat in the samples examined here; and I have information, from other sources, that samples analyzed elsewhere have yielded only traces of butter fat. Under these circumstances, it is clear that the claim is entirely unwarranted, and is misleading. Undoubtedly, a small amount of milk or cream has been used in the manufacture; but this amount is so insignificant that to claim a food value for it, or to insinuate that it may take the place of butter, is simply to deceive the purchaser.

One sample (No. 66028) consists of pop-corn, sweetened with maple, and possibly with other sugar. The amount of sugar present is too small to permit of certain identification.

Two samples sold as maple-buds, and one sample sold as rose-buds, are essentially chocolate, containing some maple sugar as a flavour. The word "buds" is probably used in reference to the shape of the confection.

Other samples are sold under various fancy names, as maple wafers; maple fudge; maple taffy; maple pudding; and others as compounds in the name of which the components are indicated, as maple fruit fudge; chocolate maple walnuts, etc.

None of these samples are offered as straight maple sugar or maple syrup; and in consequence of this fact, they do not come under regulations governing maple products which were in force at the time of the collection. It is quite apparent that in most of them, maple sugar is present merely for the purpose of giving a flavour to the article, just as lemon or vanilla might be present. It is, I think, open to question, whether the amendment of 15th. April last was intended to prohibit the employment of maple sugar as a flavouring material. Manufacturers have assured me that they have been extremely careful to purchase genuine maple sugar in order that they might thus secure a genuine maple flavour for their products. If they are forbidden to use the word *maple* in naming these products, it is difficult to see how they can find a market for them. In such cases, a statement that the goods are flavoured with maple sugar, is a simple statement of fact, and would not appear to violate the fundamental principle of the Act.

For reasons already given I have not judged any of these samples as adulterated; but in cases where cane sugar is present, I have made mention of the fact.

I beg to recommend publication of this report as Bulletin No. 322.

I have the honour to be Sir,
Your obedient servant,

A. McGILL,
Chief Analyst

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF NOVA SCOTIA—				
1915.							
May 19	Maple wafers.	54021	Woolworth's, Ltd., Halifax.	1 lb..	15	Montreal Biscuit Co., Montreal.	Manufacturer ..
" 20	Maple cream..	54022	H. H. Marshall, Halifax..	1 " ..	30	Albert Smith, Elgin, N.B.	" ..
" 21	Maple butter.	54023	A. & W. Smith & Co., Halifax.	3 tins.	63	Maple's, Ltd., Toronto.	" ..
" 25	Maple wafers.	54024	Moir's, Ltd., Halifax.....	1 lb .	15	Vendors.....	.....
			DISTRICT OF NOVA SCOTIA—				
June 3	Maple butter..	65832	James Cavanagh, New Glasgow.	3 tins.	60	Maple's, Ltd., Toronto.	R. McGregor & Son, New Glasgow.
" 3	Cremo maple butter.	65833	D. J. Murray, New Glasgow.	3 "	45	Can. Maple Exchange.	....
			DISTRICT OF CAPE BRETON—				
May 6	Maple butter..	63811	Walter's Confectionery, Sydney.	3 jars.	45	Maple's, Ltd., Toronto.	....
			DISTRICT OF PRINCE EDWARD ISLAND—				
May 7	Maple butter..	60302	J. C. Crabbe, Charlottetown.	3 tins.	45	....	Carvell Bros., Charlottetown
			DISTRICT OF NEW BRUNSWICK—				
May 13	Maple butter..	66031	W. A. Simonds, St. John.	3 tins.	60	Maple's, Ltd., Toronto.	.. ..
June 22	Chocolate maple walnuts.	66032	The Corona Co., Ltd., St. John.	½ lb .	20	Vendors..... ..	....
" 22	Maple fritters.	66033	T. J. Phillips, St. John..	3 pkgs	15	Vendor....	.....
" 22	Maple fudge..	66034	" " ..	3 "	15	"	.....
" 23	Maple walnuts	66035	M. E. Glass, St. John ..	3 "	45	Ganong Bros., Ltd., St. Stephen.	.....
May 19	Maple cre-mo.	66036	J. I. Davis & Son, St. John.	3 tins.	45	Can. Maple Exchange.	... .
June 16	Maple cream, chocolate bars	66037	H. H. Keirshead, Sussex	3 bars	30	Robertson Bros., Toronto.	..... .
" 21	Maple crispettes.	66038	W. A. Simonds, St. John.	3 rolls	15	Maple Crispette Co., Montreal	... .
" 22	Maple cream chocolate.	66039	The Corona Co., Ltd., St. John,	3 pkgs	11	Vendors.....	.. ..
" 22	Maple cream taffy.	66040	White's Dairy, St. John..	3 "	11	The Corona Co., Ltd., St. John.	. ...

SESSIONAL PAPER No. 14

MAPLE CONFECTIONS.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Results on dry basis. Lead number (Canadian)	Total Ash.	Found.		
R. J. WAUGH, INSPECTOR.							
	p. c.	p. c.		p. c.			
Vendor stated that he would not guarantee these goods all maple.	5·06	.....	0·52	0·77	... .	54021	Cane sugar present.
....	7·81	.....	1·59	0 63	.....	54022	" "
....	12·80	87·20	2·64	.....	....	54023	Meets legal requirements.
.. ..	7·08	.....	0·26	0·30	.. . .	54024	Cane sugar present.
W. A. PETIPAS, TEMP. INSPECTOR.							
....	10 48	89·52	5·04	.....	....	65832	Meets legal requirements.
.....	6·80	93·20	1·93	.. ...	....	65833	" "
E. T. McKEEN, INSPECTOR.							
... .	6·40	93 60	3·41	.....	... .	63811	Meets legal requirements.
WM. A. WEEKS, INSPECTOR.							
....	5·80	94·20	1·23	0·23	....	60302	Cane sugar present.
JOHN C. FERGUSON, INSPECTOR.							
Old Stock..... ..	12 08	87 92	2 52		....	66031	Meets legal requirements
....	15 12	84 88	2 18	...	Mixture of chocolate and maple sugar.	66032	. .
. . . . .	8 40	91 60	0 08	0·53	... ...	66033	Cane sugar present.
. . . . .	10 36	89 64	0 90	0 51	....	66034	. .
. . . . .	8 00	92 00	0 68	0 20	Mixture of nuts and sugar	66035	. .
	14 40	85 60	1 84	0 90	. . . . .	66036	Meets legal requirements
. . . . .	15 92	84 08	4 80	...	Mixture of chocolate and maple sugar	66037	. .
					Popcorn	66038	Not analysed.
....	13 24	86 76	3 74	...	Mixture of chocolate and maple sugar	66039	Meets legal requirements
. . . .	5 56	94 44	0 24	0 42	.....	66040	Cane sugar present.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NEW BRUNSWICK—							
1915.							
May 13	Maple cheese.	66041	W. A. Simond, St. John.	3 tins.	30	Maples, Ltd., Toronto.	....
June 16	Maple walnuts.	66042	H. H. Keirstead, Sussex.	¾ lb..	45	Robertson Bros., Ltd., Toronto.	.....
" 16	Maple buds chocolates.	66043	" " ..	¾ " ..	60	.....	Ganong Bros., St. Stephen.
" 21	Maple buds...	66044	W. A. Simonds, St. John.	3 pkg	30	The Cowan Co., Ltd., Toronto.	... .
" 22	Maple chocolate fudge.	66045	White's Dairy, St. John..	3 "	15	The Corona Co., Ltd., St. John.	. .. .
" 23	Rosebuds.....	66091	Wm. Hawker & Son, St. John.	3 "	45	Wm. Neilson, Toronto.	.....
" 23	Maple chocolate walnuts.	66092	W. H. Sharpe, St. John..	3 "	30	Ganong Bros., Ltd., St. Stephen.	.....
DISTRICT OF QUEBEC CITY—							
April 20	Maple butter.	56360	Myrant & Pouliot, Quebec.	3 tins.	60	Maples, Ltd., Toronto.	J. B. Renaud & Cie.
" 22	" ..	56520	Arthur Drolet, 714 St. Valier, Quebec.	3 "	60	Langlais & Paradis.	Mfrs ....
" 22	Maple cheese.	56521	" " ..	3 "	30	" " ..	" .....
DISTRICT OF QUEBEC PROVINCE—							
April 23	Maple butter.	2753	Ed. Dancausse, Montmagny.	3 lb..	90	Maples, Ltd., Toronto.	....
" 23	" ..	2755	A. N. Normand, Montmagny.	3 " ..	75	" " ..	.. ..
May 22	Maple pudding.	56453	Pierre Berube, Fraserville.	3 " ..	35	Perrin's Candy, Canada.	.....
DISTRICT OF MONTREAL—							
April 30	Maple butter.	67301	Martin & Fils, 1718 Masson St., Rosemount.	3 tins.	60	Maples, Ltd., Toronto.	....
" 30	Maple cream.	67302	W. Hawthorn, 1155 Mt. Royal Ave. E., Montreal.	3 "	36	V. B. Syrup Exchange.	.....
May 19	Maple butter.	67303	The Royal George Grocery, 221 Bernard Ave., Montreal.	3 "	45	Canada Maple Exchange.	....

SESSIONAL PAPER No. 14

MAPLE CONFECTIONS.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Water.	Solids.	Results on dry basis. Lead Number (Carnahan).	Total Ash.	Found.	No. of Sample.	Remarks and opinion of the Chief Analyst.
Concluded.							
	p. c.	p. c.		p. c.			
.....	5·80	94 20	1 59	0 53	....	66041	Cane sugar present.
.. ..	7·04	92·96	0 15	0·28	Mixture of Nuts and Sugar.	66042	" "
Cowan's	...	.....	.....	.....	Chocolate..... ..	66043	Not analyzed as maple.
....	.....	.....	.. . .		"	66044	" "
....	8·00	92·00	1·15	0·60	Mixture of Chocolate and Sugar.	66045	Cane sugar present.
Neilson's vendor stated that sample was similar to Cowan's Maple Buds.	.....	... .	.....	.....	Chocolate.....	66091	Not analyzed as maple.
.. . .	1 04	98·96	1 66	0 22	Mixture of Chocolate and Sugar.	66092	Cane sugar present.
F. X. W. E. BELAND, INSPECTOR.							
....	10·96	89 04	2 22	....	....	56366	Meets legal requirements.
....	14·84	85 16	1 40	0·44	... .	56529	Cane sugar present.
.....	6 76	93 24	2 30	..	..... .	56521	Meets legal requirements
T. GENDREAU AND A. PELLETIER, TEMPORARY INSPECTORS.							
... .	15 60	84 40	1·16	0 37	....	2753	Cane sugar present.
. ...	12 32	87 68	3·73	...	....	2756	Meets legal requirements.
... ...	13 72	86 28	1 83	0 62	Mixture of Nuts and Maple Sugar.	56453	
D. J. KEARNEY, INSPECTOR.							
. . . .	10 96	89 04	1 79	0 40	....	67301	Doubtful.
.. . .	11 48	88 52	0 19	0 47	....	67302	Cane sugar present.
.. . .	12 96	87 04	1 11	0 60	... ...	67303	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF VALLEYFIELD—							
1915.							
April 22	Maple butter.	57931	Graham & Hunter, St. Lambert.	3 tins.	75	Maples, Ltd., Toronto.	.....
" 22	" ..	57932	W. R. Simpson, St. Johns.	3 "	45	Canada Maple Exchange.	.....
DISTRICT OF OTTAWA—							
April 20	Maple butter.	63608	J. T. Conway, Perth.	3 tins.	45	Can. Maple Exchange, Montreal.	....
" 17	" .	63621	A. M. Parkinson, Kemptville.	3 "	60	Maples, Ltd., Toronto.	....
" 27	Maple cream.	63627	Michael Vise, Renfrew...	1 cake	10	Unknown	Unknown .....
" 30	Maple cream butter.	63638	Wall & Co., Ottawa.....	3 tins.	30	Ramsays, Ltd., Montreal.	....
DISTRICT OF KINGSTON—							
April 29	Maple butter.	68052	J. Gilbert Kingston.	3 tins.	30	Maples, Ltd., Toronto	.....
DISTRICT OF TORONTO—							
May 13	Maple cheese.	67074	D. J. Dunsheath, Beaverton.	3 cakes	30	Maples, Ltd., Toronto.	Unknown ... ..
" 15	Maple cream.	67075	G. Georgas, Midland.....	1 lb.	25	Vendor.....	... .
" 27	Maple butter.	67083	Maples, Ltd., Toronto. ..	3 cans.	45	Vendors.....	.....
DISTRICT OF HAMILTON—							
April 27	Maple butter	67003	Steele Bros., Palmerston.	3 cans.	60	Maples, Ltd., Toronto.	... .
" 28	Maple Bon Bon.	67004	R. G. Lambert & Sons, Hamilton.	1 lb.	20	....	Geo. E. Bristol & Co., Hamilton.
May 5	Maple butter.	67011	A. G. Bain & Co, Hamilton.	3 cans.	30	Can Maple Exchange.	....
"	Maple fruit fudge.	67012	F. W. Woolworth, Ltd., 31 King St. E., Hamilton.	1 lb..	20	Quaker Candy Co., Toronto.	.....
" 5	Maple cream.	67013	James Crawford, 34 King St. E., Harriston.	1 " ..	30	Vendor.....	....
" 6	Maple granulo sugar.	67014	James Osborne & Sons, 12 James St. S., Hamilton.	1 pkg.	25	Can. Maple Exchange, Montreal.	... .

SESSIONAL PAPER No. 14

MAPLE CONFECTIONS.

Inspector's Report. (Is not an Expression of opinion.	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Results on dry basis. Lead Number (Canadian.)	Results on dry basis. Total ash.	Found.		
J. J. COSTIGAN, ACTING INSPECTOR.							
	p. c.	p. c.		p. c.			
....	14·08	85·92	1·28	0·37	....	57931	Cane sugar present.
....	14·08	85·92	1·09	0·63	.....	57932	" "
J. A. RICKEY, INSPECTOR.							
Cremo, Small's the genuine Cremo maple butter.	15·00	85·00	1·88	0·88	... .	63608	Meets legal requirements.
Lion Brand made from pure maple sugar and fresh rich cream.	11·80	88·20	2·54	.....	....	63621	" "
.. ..	3·17	...	2 14	0·62	....	63627	" "
.. ..	12·00	88·00	0·50	0 25	....	63638	Cane sugar present.
JAMES HOGAN, INSPECTOR.							
....	13·92	86 08	3·30	.....	....	68052	Meets legal requirements.
H. J. DAGER, INSPECTOR.							
... .	2·92	97·08	2 10		.. ..	67074	Meets legal requirements.
. ...	7·56	92 44	0·43	0 22	... ...	67075	Cane sugar present.
. ...	10·56	89 44	2 93	.. .	.. ..	67083	Meets legal requirements.
H. J. DAGER, ACTING INSPECTOR.							
Lion Brand . . .	10 10	89 60	1 90	. . .	. . . . .	67080	Meets legal requirements.
.	4 67		0 23	0 23	... ...	67084	Cane sugar present.
Cremo Brand. .	4 80	95 20	1 45	0 51		67011	" "
. .	10 60	89 40	2 10	. . .	Mixture of fruit and maple sugar	67012	Meets legal requirements.
. . .	2 16	97 84	4 00	.	. . .	67013	" "
. . . .	0 08	99 92	0 61	0 24	. . . . .	67014	Cane sugar present.

BULLETIN No. 322—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF MANITOBA—							
1915.							
April 26	Maple butter.	61321	J. Jost, Sargent Ave., Winnipeg.	1 lb.	75	Maples, Ltd., Toronto	.....
" 26	Maple cheese.	61322	" " ..	3 pkgs	30	" " ..	.....
DISTRICT OF SASKATCHEWAN—							
April 27	Maple butter.	66359	Conlin Bros., Swift Current.	3 cans	75	Maples, Ltd., Toronto.	Swift Current Grocery.
DISTRICT OF ALBERTA—							
April 30	Maple butter.	52151	Johnstone Walker, Ltd., Edmonton.	3 tins.	75	Maples, Ltd., Toronto.	.....
May 21	Maple cheese.	52152	Pryce Jones (Can.) Ltd., Calgary.	3 c'kes	30	" "	.....
DISTRICT OF ROCKY MOUNTAINS—							
May 20	Maple butter.	61813	Ira R. Manning, Ltd., Cranbrook.		100	Maples, Ltd., Toronto.	.....
DISTRICT OF VANCOUVER—							
May 3	Maple butter.	55244	T. W. Turner, 890 Pender St. W., Vancouver.	3 tins.	75	Maples, Ltd., Toronto.	.....
DISTRICT OF VICTORIA—							
May 31	Maple butter.	66717	West End Grocery, Ltd., 1002 Govt. St., Victoria.	3 tins.	75	Maples, Ltd., Toronto.	.....

SESSIONAL PAPER No. 14

MAPLE CONFECTIONS.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Results on dry basis. Lead Number (Canadian).	Total Ash.	Found.		
A. C. LARIVIERE, INSPECTOR.							
	p. c.	p. c.		p. c.			
.....	11·76	88·24	1·33	0·35	.....	61321	Cane sugar present.
.....	6·92	93·08	1·49	0·44	.....	61322	" "
L. H. HALL, INSPECTOR.							
.....	11·72	88·28	1·81	0·44	.....	66359	Doubtful.
A. W. R. MARKLEY, INSPECTOR.							
.....	9·92	91·08	1·37	0·37	.....	52151	Cane sugar present.
.....	3·48	96·52	0·90	0·34	.....	52152	" "
THOS. PARKER, INSPECTOR.							
.....	11·28	88·72	2·57	.....	.....	61813	Meets legal requirements.
E. J. MORGAN, INSPECTOR.							
Lion Brand	9·50	90·50	6·31	.....	.....	55244	Meets legal requirements.
D. O'SULLIVAN, INSPECTOR.							
Lion Brand	16·32	83·68	2·90	.....	.....	66717	Meets legal requirements.

APPENDIX N.

BULLETIN No. 323—SALPETRE.

OTTAWA, October 13, 1915.

J. U. VINCENT, Esq.,
Deputy Minister Inland Revenue.

SIR,—I beg to hand you herewith a report upon one hundred and sixty-six (166) samples, purchased by our inspectors in April, May and June of this year, as *Saltpetre.*

This term applies to the potassium salt of nitric acid, otherwise known as *Nitre,* or nitrate of potash. As a food material it is chiefly used in pickling meats. In the arts, it is largely employed for manufacture of gunpowder and other explosives; and for this reason, as well as because the Stassfurt mines of Germany have been in recent years, our chief source of potash, considerable difficulty in securing supplies of saltpetre exists.

In consequence of the above facts the sodium salt of nitric acid, commercially known as Chili Saltpetre, is made to supply the place of true saltpetre, wherever such replacement is possible. The hygroscopic character of the sodium salt (Chili Saltpetre) makes it less available for most uses in the arts; but for the purposes of a pickle Chili Saltpetre may be regarded as satisfactory, when properly refined. The physiological properties of the nitrates of potash and soda are, as far as known, practically identical.

An official announcement was made in September, 1914, by the Secretary of Agriculture at Washington, to the following effect:

"This order permits the immediate use of nitrate of soda (Chili Saltpetre) in the preparations of meat and food products in establishments where Federal meat inspection is maintained."

While no ground exists for objecting to the substitution of sodium nitrate for potassium nitrate, so far as the manufacture of pickle is concerned, it remains that the cheaper article (Sodium nitrate) should be offered for sale under its own proper name, and should not be sold as Saltpetre or nitre. Complaints have been received by the Department charging that many dealers supply the sodium salt under the name of the potassium salt (saltpetre) and are thus able to compete unfairly in the market as against those dealers who properly describe the article.

The present report appears to justify the complaint made; and the results of inspection may be summarized as follows:—

Found genuine as Saltpetre	109	samples.
Found to be Chili Saltpetre	49	"
Found to be mixtures of both	7	"
Found to be sulphate of soda	1	"
Total	166	"

Sample No. 56451 found to be sulphate of soda (Glauber's Salt) is evidently a mistake on the part of the vendor.

I would respectfully advise publication of this report as Bulletin No. 323. It will serve the purpose of a warning to dealers, and furnish information to the public.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

BULLETIN No. 323—SALTPETRE.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturers or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).	Results of Analysis.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.				
DISTRICT OF NOVA SCOTIA—R. J. WAUGH, INSPECTOR.											
1915.											
June 18	Saltpetre...	54041	Nat. Drug & Chem. Co., Halifax.	1 lb.	25	Unknown	....	.....	Potassium Nitrate.....	54041	Genuine.
" 23	" ..	54042	Brown Bros. & Co., Halifax.	"	25	"	N. D. & Chem. Co., Halifax.	.. ..	" ...	54042	"
" 23	" ...	54043	Estate of J. R. Rowley, Halifax.	"	25	"	" ..	. ...	"	54043	"
" 28	" ...	54044	Kinleys, Ltd., Halifax ..	1 "	25	"	" ..	. .....	"	54044	"
" 28	" ...	54045	Buckley Bros., Halifax ..	1 "	20	"	" ..	....	"	54045	"
DISTRICT OF PRINCE EDWARD ISLAND—WM. WEEKS, INSPECTOR.											
May 7	Saltpetre...	60185	E. A. Foster, Charlottetown.	1 lb.	25	Lymans Ltd., Montreal.	. .. .	....	Potassium Nitrate.....	60185	Genuine.
" 7	" ...	60186	C. D. Rankin, Charlottetown.	1 "	20	N. D. & C. Co., Halifax.	.. ..	.. ..	"	60186	"
" 10	" ...	60187	George E. Hughes, Charlottetown.	1 "	25	Lymans Ltd., Montreal.	....	....	"	60187	"

DISTRICT OF NEW BRUNSWICK—JOHN C. FERGUSON, INSPECTOR.

May		Saltpetre	66076	Nat. Drug & Chem. Co., St. John.	1	lb.	25	N. D. & C. Co. Montreal.	.....	.....	Potassium Nitrate....	66076	Genuine.
"	17	"	66077	Canadian Drug Co., St. John.	1	"	25	Unknown	.....	.....	" ...	66077	"
"	17	" (pulverized).	66078	Baird & Peters, St. John	1	"	25	.....	N. D. & C. Co., St. John.	.....	Sodium Nitrate.....	66078	Is Chili Saltpetre.
"	19	Saltpetre	66079	Puddington, Wetmore & Morrison, St. John.	1	"	20	.....	"	.....	Potassium Nitrate	66079	Genuine.
"	23	"	66080	W. H. Vanwart, Fredericton.	1	"	25	.....	G. W. Hodge, Fredericton.	.....	Sodium Nitrate. ..	66080	Is Chili Saltpetre.
"	26	"	66081	Stevens Bros., Woodstock, N.B.	1	"	25	.....	Can. Drug Co., St. John.	.....	Potassium Nitrate ...	66081	Genuine.
"	27	"	66082	Wade Drug Co., Perth N.B.	1	"	25	.....	N. D. & C. Co., St. John.	.....	Sodium Nitrate.	66082	Is Chili Saltpetre.
June	8	"	66083	S. B. Hunter, Harvey Station	1	"	15	.....	Can. Drug Co., St. John.	.....	Potassium Nitrate 84%. About 15% Sodium Nitrate.	66083	Mixed nitrates of potash and soda.
"	9	"	66084	J. D. Grimmer, St. Andrews	1	"	25	Unknown	Unknown	.....	Potassium Nitrate .. .	66084	Genuine.
"	10	"	66085	Sussex Mercantile Co., Sussex.	1	"	15	.....	H. W. Cole, St. John.	.....	" .. .	66085	"

DISTRICT OF QUEBEC CITY—F. X. W. E. BELAND, INSPECTOR.

April	25	Saltpetre	56364	Jos. Gagne, 731 Valer, Quebec.	1	lb.	12	Dr. Ed. Morin, Co.	Mfrs.	.....	Potassium Nitrate . ..	56364	Genuine.
"	25	"	56365	John Laroche, 736 Valer, Quebec	1	"	20	Nat. Drug....	Nat. Drug, Montreal.	.....	" ...	56365	"
"	25	"	56367	J. B. Giroux, 387 St. Joseph, Quebec	1	"	25	Burroughs Wellcome Co.	Lymans, Ltd., Montreal.	.....	" ...	56367	"
"	26	"	56373	W. Ernestte Cre, 1322 Rue St Joseph, Quebec	2	"	30	W. F. P. Currie, Montreal.	Mfr.....	.....	"	56373	"
"	26	"	56374	L. E. Martel, 51 Rue St Joseph, Quebec	2	"	30	"	"	.....	"	56374	"
"	27	"	56400	Jos. Masson, 408 Rue St Valier, Quebec.	1	"	25	Dr. Ed. Morin Cie.	"	.....	" ...	56400	"
"	29	"	56523	Dr Fournier, 916 St Jean, Quebec.	1	"	20	"	"	.....	" ...	56523	"
"	30	"	56524	A. E. Fregeau, 3790 St Jean, Quebec.	1	"	20	"	"	.....	"	56524	"
"	30	"	56525	A. L. Jolicoeur, 398 St Jean, Quebec.	1	"	25	J. E. Livernois	"	.....	Sodium Nitrate	56525	Is Chili Saltpetre
"	31	"	56526	F. X. Delachevrotiere 2048 St Jean, Quebec.	1	"	55	Lymans, Ltd.	Mfr	.....	Potassium Nitrate97%.	56526	Genuine.

BULLETIN No. 323—SALTPETRE.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.				
DISTRICT OF QUEBEC CITY—F. X. W. E. BELAND, INSPECTOR.											
1915.											
April 29	Saltpetre...	56527	J. E. Turcotte, 117 St. Jean, Quebec.	1 lb.	20	Nat. Drug.....	Mfr.....	.....	Potassium Nitrate....	56527	Genuine.
" 29	" ...	56528	J. E. Livernois, Quebec..	1 "	18	Unknown.....	Unknown....	.....	"	56528	"
" 29	" ...	56529	B. B. Roger, 44 Fabrique, Quebec.	1 "	30	Lymans, Ltd...	Mfrs	.....	"	56529	"
" 29	" ...	56530	Laroche & Cie, 4 Fabrique, Quebec.	1 "	50	E. B. Squibb, New York.	"	.....	"	56530	"
DISTRICT OF QUEBEC PROVINCE—J. E. AUDET, O. BROCHU, T. GENDREAU, N. CADIEUX AND A. PELLETIER, TEMPORARY INSPECTORS.											
May 1	Saltpetre...	3838	S. Martel, Quebec Marché.	1 lb.	15	.....	.....	.....	Sodium Nitrate.	3838	Is Chili Saltpetre.
" 15	" ...	3855	Lacasse & Audet, St. Edward, Framton.	2 "	20	.....	.....	.....	"	3855	"
" 27	" ...	5858	A. Cloutier, Ste Odilon.	2 "	30	.....	.....	.....	"	3858	"
" 19	" ...	3861	Anselme Fortier, Ste. Rose.	2 "	25	.....	.....	.....	Sodium Nitrate, contains organic matter.	3861	"
" 20	" ...	3862	C. Dechêne, Ste. Germaine.	2 "	20	.....	.....	.....	Sodium Nitrate.... .	3862	"
" 26	" ...	3864	Dorchester Lumber, Ste. Malachie.	2 "	23	.....	.....	.....	"	3864	"

June	4	Saltpetre	3866	Jos. Turgeon, St. Nazaire.	2	"	20				"	3866	"
"	7	"	3867	P. Genest, St. Bernard.	3	"	40				"	3867	"
"	7	"	3868	Napt. Dumas, St. Come, Beauce.	3	"	30				"	3868	"
"	14	"	3871	Jos. Cloutier, St. Ephrim.	3	"	30				"	3871	"
May	7	"	3563	Alphonse Audet, St. Lazare.	1	lb.	12	J. B. Morin	Dr. Ed. Morin, Quebec.		"	3563	"
April	25	"	2756	A. E. Michaire, Montmagny.	1	"	24		N. Brunette & Cie., Quebec.		Potassium Nitrate	2756	Genuine.
"	28	"	2764	C. Corriveau, Montmagny.	1	"	12				Sodium Nitrate	2764	Is Chili Saltpetre.
"	28	"	274	Eug. Fournier, St. Jerôme.	1	"	25		Nat. Drug, Montreal.		Potassium Nitrate	274	Genuine.
May	4	"	284	A. St. Amour, Ste. Agathe des Monts.	1	"	30				"	284	"
"	4	"	286	Dr. Ed. Grignon, St Agathe des Monts.	1	"	25				"	286	"
"	21	"	56451	L. P. Lepage, Rimouski.	1	"	50	Unknown			Sodium Sulphate	56451	Evidently supplied by mistake.
"	22	"	56456	Fraserville Drug Co., Fraserville.	1	"	50		Lymans, Ltd., Montreal.		Potassium Nitrate	56456	Genuine.
"	22	"	56462	Ed. Chartier, Fraserville.	1	"	40	Unknown			Sodium Nitrate	56462	Is Chili Saltpetre.
June	1	"	56466	John Kaine, Fraserville	1	"	35	Lymans, Montreal.			Potassium Nitrate 79·25 p.c. and about 20 p.c. Sodium nitrate.	56466	Mixed sodium and potassium nitrates.

DISTRICT OF THREE RIVERS—DR. V. P. LAVALLEE, INSPECTOR.

May	7	Saltpetre	67968	J. T. Gaudet, Joliette.	1	lb	25		Lyman Knox, Montreal.		Potassium Nitrate	67968	Genuine.
"	8	"	67969	A. L. Boucher, Joliette.	1	"	30		"		Sodium Nitrate	67969	Is Chili Saltpetre.
"	8	"	67970	C. L. Rivest, Joliette.	1	"	12		Laporte & Martin Montreal.		Potassium Nitrate	67970	Genuine.
"	7	"	67971	J. V. Dauvault, Berthierville.	1	"	12		"		Sodium Nitrate	67971	Is Chili Saltpetre.
"	7	"	67972	O. Paquette, Berthierville.	1	"	12		"		"	67972	"
"	7	"	67973	A. L. Caisse, Berthierville.	1	"	15		"		"	67973	"
"	25	"	67998	J. O. Jeanotte, Berthierville.	1	"	15		Jos. Dufresne, Joliette.		"	67998	"
"		"	67999	C. Barrette, Berthierville.	1	"	10		"		"	67999	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher As given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.	No. of Sample.	Remarks, and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.				
DISTRICT OF THREE RIVERS—DR. V. P. LAVALLEE, INSPECTOR.—*Concluded*.											
1915.											
May 15	Saltpetre..	68000	William Perrault, Berthierville,	1 ..	10	.....	Jos. Dufresene. Joliette.	....	Sodium Nitrate..... ..	68000	Is Chili Saltpetre.
" 25	" ..	69102	Louis Provost, L'Epiphanie.	1 " ..	08	.....	Chevalier Pouliot, Montreal.	... .	"	69102	"
DISTRICT OF MONTREAL—D. J. KEARNEY, INSPECTOR.											
Apr. 26	Saltpetre....	67331	Dr. Millier, 1800 Masson St., Rosemont.	1 lb..	25	. ...	Unknown	....	Potassium Nitrate....	67331	Genuine
" 26	" ..	67332	G. St. Jacques, 1161 Mt. Royal Ave., Montreal.	1 " ..	10	....	"	....	"	67332	"
" 26	" ..	67333	J. E. Morin, 927 Mount Royal Ave., Montreal.	1 " ..	25	....	National Drug Company.	....	"	67333	"
" 26	" ..	67334	D. & A. Dufresne, 781 Mount Royal Ave., Montreal.	1 " ..	30	... .	Lyman Ltd.....	.....	"	67334	"
" 26	" ..	67335	N. Cleroux, 738 Mount Royal Ave., Montreal.	1 " ..	25	....	"	....	"	67335	"
" 26	" ..	67336	A. Lalonde, 586 Mount Royal Ave., Montreal.	1 " ..	35	.....	"	.. ..	" .. .	67336	"
" 27	" ..	67337	Outremont Pharmacy, 1195 Bernard Street, Outremont.	1 " ..	15	.. ..	" . ..	.....	" ...	67337	"
" 27	..	67338	Van Horne Drug Store, 1001 Van Horne Ave., Montreal.	1 " ..	20	.. ..	Unknown . . .	.. ..	" .. .	67338	"

"	27	"	"	67339	Geo. A. Langlois, 187 Bernard Ave., Montreal.	1	"	..	40	....	Lyman Ltd....	....	"	....	67339	
"	27	"	"	67340	P. R. Thomas, 384 Bleury St., Montreal	1	"	..	15	.....	McEwen, Cameron & Wait.	....	"	....	67340	"
"	27	"	"	67341	M. Cormacks, 127 Prince Arthur St., Montreal.	1	"	..	20	....	Nat. Drug Co..	....	"	....	67341	"
"	27	"	"	67342	A. P. Fortin, 1500 Park Ave., Montreal.	½	"	..	10	.....	Unknown ..	.....	"	...	67342	"
"	27	"	"	67343	H. R. Hunt, 230 Laurier ave. w., Montreal.	1	"	..	45	....	Lyman's, Ltd ..	....	"	....	67343	"
"	27	"	"	67344	Martineau Drug Store, 1068 St. Denis st., Montreal.	1	"	..	15	....	Unknown	.....	"	....	67344	"
"	27	"	"	67345	J. H. Robert, 1185 St. Denis st., Montreal.	1	"	..	15	.....	"	....	"	....	67345	"

DISTRICT OF EASTERN TOWNSHIPS—J. J. COSTIGAN, ACTING INSPECTOR.

May	25	Saltpetre..	"	58171	E. C. Fraser, Sherbrooke	1	lb.	..	25	....	Lyman's, Ltd ..	.....	Potassium nitrate.....		58171	Genuine.
"	25	"	"	58172	F. T. Ansell, "	1	"	..	20	....	.. . .	.....	"	....	58172	"
"	25	"	"	58173	G. Richard, "	1	"	..	35	.....	.....	.....	"	....	58173	"
"	25	"	"	58174	F. D. Hewett, "	1	"	..	25	....	N. D. & C. Co..	....	"	...	58174	"
"	25	"	"	58175	A. E. DaBerger, "	1	"	..	25	....	Lyman's, Ltd ..	. ...	"	....	58175	"
"	31	"	"	57951	Pharmacia Viger, St. Hyacinthe.	1	"	..	20	.....	.....	....	"	....	57951	"

DISTRICT OF OTTAWA—J. A. RICKEY, INSPECTOR.

April	21	Saltpetre..	"	63637	Jos. Grant, Ottawa..	1	lb		15	.....	W. & F. P. Currie & Co., 345 St. James st., Montreal.	....	Sodium nitrate,. ..		63637	Is Chili Saltpetre.
May	6	"	"	63648	P. D'Aoust & Cie, Hull,	1	"		8	....	"	....	"	.....	63648	"
"	6	"	"	63652	The F. J. Castle Co., Ottawa.	1	"		8	Unknow	Unknown	.. ..	"	.....	63652	"

BULLETIN NO. 323—SALTPETRE.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.				
DISTRICT OF KINGSTON—JAMES HOGAN, INSPECTOR.											
1915.											
April 28	Saltpetre...	68031	C. S. Prouse, Kingston..	1 lb.	20	....	N. C. Polson & Co., Kingston.	....	Sodium Nitrate.....	68031	Is Chili Saltpetre.
" 28	" ...	68032	T. H. Sargent, Kingston.	1 "	20	....	Nat. Drug Co., Toronto.	....	Potassium Nitrate.....	68032	Genuine.
May 4	" ...	68033	Green's, Belleville	1 "	30	....	Drug Trading Co., Toronto.	.....	"	68033	"
" 4	" ...	68034	F. C. Clarke, Belleville .	1 "	20	....	" "	....	"	68034	"
" 4	" ...	68035	W. H. Lattimer.....	1 "	20	....	J. Sloane & Co., Belleville.	.....	Sodium Nitrate.....	68035	Is Chili Saltpetre.
" 4	" ...	68036	The Belleville Pharmacy, Belleville.	1 "	20	....	Lyman's, Ltd., Toronto.	....	Potassium Nitrate	68036	Genuine.
" 4	" ...	68037	H. T. Paton, Cobourg...	1 "	30	.....	" "	.....	"	68037	"
" 5	" ...	68038	W. J. B. Davison, Port Hope.	1 "	25	.....	Drug Trading Co., Toronto.	.....	"	68038	"
" 5	" ...	68039	F. C. Weber, Peterboro.	1 "	20	.....	E. G. West & Co., Toronto.	.....	" .. .	68039	"
" 5	" ...	68040	M'Dermid & Jury, Peter-	1 "	15	.....	Drug Trading Co., Toronto.	.....	"	68040	"

DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.

May	25	Saltpetre.	67078	John Sloane & Co., 280 Church Ave., Toronto.	1	lb.	10		Unknown		Sodium Nitrate	67078	Is Chili Saltpetre.
"	25	"	67079	The Drug Trading Co., 6 Ontario St., Toronto.	1	"	17		Dillons, Ltd., Montreal.		Potassium Nitrate	67079	Genuine.
"	25	"	67080	E. G. West & Co., 80 George St., Toronto.	1	"	20		"		"	67080	"
"	25	"	67081	Lyman Bros., Ltd., 71 Front St., Toronto.	1	"	20		"		Sodium Nitrate. Is labelled Sodium Nitrate.	67081	Is Chili Saltpetre.
"	25	"	67082	Perkins Ince & Co., 41 Front St., Toronto.	1	"	10		"		Sodium Nitrate	67082	" "
"	27	"	67085	The Nat. Drug & Chem. Co., 240 Richmond St., Toronto.	1	"	25		"		Potassium Nitrate	67085	Genuine.

DISTRICT OF HAMILTON—H. J. DAGER, ACTING INSPECTOR.

April	28	Saltpetre.	66989	Jackson & Son, Guelph.	1	lb.	20		Balfour, Smye & Co., Hamilton.		Potassium Nitrate	66989	Genuine.
"	26	"	67002	The Simpson Co., Guelph.	1	"	8		A. P. Tippett, Montreal.		Sodium Nitrate	67002	Is Chili Saltpetre.
"	26	"	67005	McLaughlan & Sons Co., Owen Sound.	1	"	8		Winn & Holland, Montreal.		"	67005	" "
"	26	"	67006	W. T. Harris & Co., Owen Sound.	1	"	7		A. P. Tippett, Montreal.		"	67006	" "
May	3	"	67007	Geo. E. Bristol & Co. 73 McNabb St. N., Hamilton	1	"	8		Winn & Holland, Montreal.		"	67007	" "
"	3	"	67009	W. H. Gillard & Co., Hamilton	1	"	10		"		Potassium Nitrate	67009	Genuine.
"	3	"	67010	Macpherson, Glasseo Co., Hamilton.	1	"	8		"		Sodium "	67010	Is Chili Saltpetre.
"	6	"	67016	Nat. Drug and Chem Co., Hamilton.	1	"	15				Potassium "	67016	Genuine.
"	6	"	67017	Lumsden Bros., Hamilton.	1	"	10				Sodium "	67017	Is Chili Saltpetre.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).	Results of Analysis.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.				
DISTRICT OF WINDSOR—JOHN TALBOT, INSPECTOR.											
1915.											
May 3	Saltpetre...	54604	H. Robertson, Sarnia ...	1 lb..	30	.....	Lyman Bros., Toronto.	... .	Potassium Nitrate....	54604	Genuine.
" 3	" ..	54605	Clement Drug Store, Sarnia.	1 " ..	20	....	Drug Trading Co., Toronto.	.....	" ...	54605	"
" 3	" ..	54606	Geo. Ingersoll, Sarnia...	1 " ..	25	.....	" ..	.....	" . ..	54606	"
" 4	" ..	54614	P. T. McKibbon, Sarnia.	1 " ..	20	....	E. G. West & Co., Toronto.	.....	"	54614	"
" 4	" ..	54615	J. B. Dale, Petrolia. . .	1 " .	25	.....	Drug Trading Co., Toronto.	....	" .. .	54615	"
" 6	" ..	54620	W. O. Foster, St. Thomas.	1 " .	15	....	Nat. Drug Co., St. Thomas.	.....	"	54620	"
" 6	" ..	54621	Geo. H. Small, St. Thomas.	1 " ..	20	.....	" .	....	"	54621	"
" 6	" .	54622	F. W. Judd, St. Thomas.	1 " .	25	.....	" ..	.....	"	54622	"
" 6	" ..	54623	R. E. Crane & Co., St. Thomas.	1 " ..	25	....	" ..	....	"	54623	"
" 6	" ..	54624	F. A. Leman & Co., St. Thomas.	1 " ..	15	.....	Drug Trading Co., Toronto.	....	" ...	51624	"
DISTRICT OF MANITOBA—A. C. LARIVIERE, INSPECTOR.											
May 14	Saltpetre ...	61272	Geo. McLean Co., Ltd., Winnipeg.	1 lb.	10	... .	.....	.....	Sodium Nitrate.... ..	61272	Is Chili Saltpetre.
" 14	" ...	61273	Richards & Brown, Winnipeg.	1 "	Nil.	.....	....	....	"	61273	"

"	14	"	61274	The A. McDonald Co., Winnipeg.	1	"	10				"		61274	"
"	14	"	61275	Campbell Bros. & Wilson, Winnipeg.	1	"	Nil				"		61275	"
"	14	"	61276	The Codville Co., Winnipeg.	1	"	"				"		61276	"
"	14	"	61277	The Minnedosa Pharmacy, Minnedosa.	1	"	25	Nat. Drug & C. Co., Winnipeg.			Potassium Nitrate 92% and Sod. Nitrate.		61277	Mixed nitrates, potash and soda.
"	14	"	61278	R. T. Butchart, Minnedosa.	1	"	20				"	"	61278	"
"	15	"	61279	B. M. Cammeff, Portage la Prairie.	1	"	25				Sodium Nitrate		61279	Is Chili Saltpetre.
"	15	"	61280	Portage Pharmacy, Portage la Prairie.	1	"	25				Potassium Nitrate 83% and Sod. Nitrate.		61280	Mixed nitrates, potash and soda.
"	15	"	61281	L. K. Hill, Portage la Prairie	1	"	25				Potassium Nitrate 85% and Sod. Nitrate.		61281	"

DISTRICT OF SASKATCHEWAN—L. H. HALL, INSPECTOR.

April	26	Saltpetre	66351	T. W. Hutcheson, Swift Current.	1	lb.	35		Martin, Bole & Wynne, Winnipeg.		Potassium Nitrate		66351	Genuine.
"	27	"	66357	J. G. Laycock, Swift Current.	1	"	25		N. D. & C. Co., Winnipeg.		"		66357	"
May	1	"	66371	F. W. Marlatt, Moosejaw.	1	"	25		"		"		66371	"
"	1	"	66372	E. L. Colling, Moosejaw.	1	"	25		"		"		66372	"
"	1	"	66373	H. A. Davidson, Moosejaw.	1	"	20		A. McDonald Co., Moosejaw.		Sodium Nitrate		66373	Is Chili Saltpetre.
"	2	"	66376	Codville Co., Moosejaw.	1	"	10		F. H. Wiley, Winnipeg.		"		66376	"
"	6	"	66382	Campbell, Wilson & Strathdee, Regina.	1	"	5		"		"		66382	"
"	4	"	66383	Canada Drug & Book Co., Regina.	1	"	20		N. D. & C. Co., Regina.		Potassium Nitrate		66383	Genuine.

DISTRICT OF ALBERTA—A. W. R. MARKLEY, INSPECTOR.

April	30	Saltpetre	52146	G. H. Greydon, Edmonton.	1	lb.	30		Lyman Bros.		Potassium Nitrate		52146	Genuine
"	30	"	52147	J. H. Lines, Edmonton	1	"	25		Nat. Drug Co., Edmonton.		"		52147	"
"	30	"	52148	Macdonald Cooper, Ltd., Edmonton.	1	"	10		B. & R., New York.	Refined Nitrate of Soda.	Potassium Nitrate, 92·48 p.c.; 7·52 p.c. Sodium Nitrate.		52148	Mixed Nitrates Potash & Soda.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.	No. of Sample.	Remarks and Opinion. of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.				
DISTRICT OF ALBERTA—A. W. R. MARKLEY, INSPECTOR.—*Concluded.*											
1915.											
April 30	Saltpetre...	52149	Macdonald Cooper, Ltd., Edmonton.	1 lb.	10	....	B. & R., New York.	.....	Potassium Nitrate, 0·10 p.c.; 99·90 p.c. Sodium Nitrate.	52149	Is Chili Saltpetre.
May 18	" ...	52150	Findlay Drug Co., Calgary.	1 "	25	....	Lyman & Sons, Montreal.	. .. .	Pot. Nitrate	52150	Genuine.
" 20	" ...	52154	Wendell McLean, Calgary.	1 "	30	....	N. D. & C. Co., Calgary.	.....	Pot. Nitrate Trace Sod Nitrate.	52154	"
" 21	" ...	52155	Nat. Drug & Chem. Co., Calgary.	1 "	20	....	" "	.....	Pot. Nitrate...	52155	"
June 14	" ...	52156	J. H. Sliles, Bassana....	1 "	20	....	" "	.. . .	"	52156	"
" 15	" ...	52182	P.W. McNabb, Brooks..	1 "	40	.. ..	" "	.....	"	52182	"
" 17	" ...	52184	Frank Hedley Drug Co., Lethbridge.	1 "	35	.....	Martin, Bole & Wynne, Winnipeg.	.....	"	52184	"

DISTRICT OF ROCKY MOUNTAINS—THOS. PARKER, INSPECTOR.

April 29	Saltpetre	61819	E. W. Hazlewood, Trail	1	lb.	35	.....	N. D. & C. Co., Vancouver.	.....	Potassium Nitrate....	61803	Genuine.
May 2	"	61820	Cranbrook Drug & Book Co., Cranbrook.	1	"	20	.....	N. D. & C. Co., Montreal.	.....	"	61820	"

DISTRICT OF VANCOUVER—E. J. MORGAN, INSPECTOR.

May 25	Saltpetre	55271	Kelly, Douglas & Co., Ltd., Vancouver.	1	lb.	...	N. D. & C. Co. of Canada.	.....	.....	Potassium Nitrate ..	55271	Genuine.
" 26	"	55272	W. M. Harrison & Co., Ltd., Robson and Granville Sts., Vancouver.	1	"	20	Unknown.	.....	.....	" ...	55272	"
" 27	"	55273	Frederic T. Hill, 628 Columbia St., New Westminster.	1	"	25	N. D & C. Co. of Canada.	.....	.....	"	55273	"
" 28	"	55274	Leamon, Dickie, Gross & Co., Water St., Vancouver.	1	"		J. A. Lepoorten, Ltd., Vancouver.	.....	.....	" ...	55274	"
" 29	"	55275	W. H. Malkin Co., Ltd., Water St., Vancouver.	1	"		Unknown...	.....	.....	"	55275	"

DISTRICT OF VICTORIA—D. O'SULLIVAN, INSPECTOR.

June 11	Saltpetre	66738	Geo. A. Fraser & Co., 914 Govt. St., Victoria	1	lb.	35	.....	N. D. & C. Co., Victoria.	.....	Potassium Nitrate	66739	Genuine.
" 11	"	66742	T. S. Williams, 613 Fort St., Victoria.	1	"	35	.....	"	.....	"	66742	"
" 14	"	66743	D. E. Campbell, Fort & Douglas Sts., Victoria.	1	"	20	.....	"	.....	"	66743	"
" 14	"	66744	Terry's Drug Store, 705 Fort St., Victoria.	1	"	40	E. R. Squibb & Sons, New York.	.....	.....	" ...	66744	"
" 14	"	66746	Hall & Co., 702 Yates St., Victoria.	1	"	35	.....	N. D. & C. Co., Victoria.	.....	"	66746	"
" 14	"	66748	Irvin's Pharmacy, 1410 Govt. St., Victoria.	1	"	35	.....	"	.....	"	66748	"
" 14	"	66750	W. Jackson & Co., 1411 Douglas St., Victoria.	1	"	30	.....	J. L. Lepoorten & Co., Vanc.	.....	" ..	66750	"
" 14	"	66752	John Cochrane, 1360 Douglas St., Victoria.	1	"	30	.....	N. D. & C. Co., Victoria.	.....	"	66752	"
" 14	"	66755	Nat. Drug & Chem. Co., 542 Yates St., Victoria.	1	"	20	.....	N. D. & C. Co., Vancouver.	.....	" ..	66755	"
" 15	"	66756	Cyrus H. Bowes, 1228 Gov. St., Victoria.	1	"	25	.....	Lymans, Ltd., Montreal.	.....	"	66756	"

APPENDIX O.

BULLETIN No. 324—MAPLE SUGAR.

OTTAWA, October 14, 1915.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to hand you a report upon Maple Sugar as obtained by our inspectors in April, May and June of this year.

Standards for Maple Sugar have been in force since November 27, 1911; the Order in Council defining them is published by this department as Circular G. 994.

An amendment to the Adulteration Act was assented to in April of this year, and introduces the following change in the Act, as regards maple products:—

"1. Section 29*a* of the Adulteration Act, chapter 133 of the Revised Statutes, 1906, as enacted by chapter 19 of the statutes of 1914, is repealed and the following is substituted therefor:—

"29*a*. No person shall manufacture for sale, keep for sale, offer or expose for sale, or sell, any article of food resembling or being an imitation of maple sugar or maple syrup, or which is composed partly of maple sugar or maple syrup, and which is not pure maple sugar or pure maple syrup.

"2. Any maple sugar or maple syrup which is not up to the standard prescribed by the sixth schedule to this Act, or, if such standard is changed by the Governor in Council, to such standard as the Governor in Council may from time to time prescribe, shall be deemed to be adulterated within the meaning of this Act.

"3. The word "maple" shall not be used, either alone or in combination with any other word or words, or letter or letters, on the label or other mark illustration or device on a package containing any article of food, or on any article of food itself, which is not pure maple sugar or pure maple syrup, and any article of food labelled or marked in violation of this subsection shall be deemed to be adulterated within the meaning of this Act."

The following synopsis presents the results of analysis of the above mentioned samples:—

	Samples.
Found genuine	204
" to [illegible] requirements	5
" adulterated	25
Total	234

Five samples so nearly meet legal minimum requirements, that adulteration cannot be established in their regard: but they are not, on this account, above suspicion.

I would respectfully recommend publication of this report as Bulletin No. 324.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

NOTE 1.—Vendor claims to have sold this as a compound maple sugar.

" 2.—Vendor claims to have sold sample without giving a guarantee of purity.

" 3.—Vendor claims that the sugar was sold to him as pure by the manufacturer.

" 4.—Vendor or furnisher states that the article was manufactured by Maples Ltd., Toronto.

" 5.—Manufacturer claims that the article was sold by him not as maple sugar, but as maple flavoured sugar.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1915.							
May 19	Maple Sugar.	54001	Estate of Wm. Patrick, Halifax.	1 lb.	25	Unknown	J. F. Harrison, Athol, N.S.
" 19	"	54002	Rooney & Lovett, Halifax	1½ "	30	G. Gilbert, Gilbert's Mountain.	Mfr
" 19	"	54003	W. A. Hart, Halifax	1 "	20	Unknown	E. W. Crease & Son, Halifax.
" 20	"	54004	W. A. Shanks, Halifax	1¼ "	25	D. A. Lavers, Parrsboro, N.S.	Mfr
" 20	"	54005	S. Smith & Son, Halifax	1 "	20	Maples, Ltd., Toronto.	Bauld Bros., Halifax.
" 21	"	54006	Bauld Bros., Ltd., Halifax.	1 "	15	"	Mfr
" 21	"	54007	E. W. Crease & Son, Halifax.	1¼ "	20	Knox Dodge, Mapleton, N.S.	"
" 26	"	54008	A. Stitchbury, Dartmouth	1¼ "	32	Unknown	Unknown
" 26	"	54009	Coleman & Eisener, Halifax.	1 "	20	"	R. B. Seeton, Halifax.
" 26	"	54010	A. Forsyth, Halifax	1 "	20	Sugars and Canners, Ltd., Montreal.	C. E. Choate, Halifax.
DISTRICT OF NOVA SCOTIA—							
June 4	Maple Sugar.	65854	A. J. Roop, New Glasgow	1 lb.	20	E. E. Dickinson, West Brook, N.S.	Mfr
" 4	"	65855	A. A. McDonald, New Glasgow.	1 "	20	"	"
" 4	"	65857	D. J. Murray, New Glasgow.	1 "	20	"	"
" 5	"	65858	C. Grant, New Glasgow	1 "	15	Unknown	Unknown
" 5	"	65859	John D. McIver, New Glasgow.	1 "	20	"	B. D. Rogers, Stellarton, N.S.
DISTRICT OF CAPE BRETON—							
May 6	Maple Sugar.	63808	Hennigers, Sydney	1 lb.	25	Milford Crowe, Mapleton, N.S.	
" 6	"	63810	Walter's Confectionery, Sydney.	1 "	25	Maples, Ltd., Toronto.	

SESSIONAL PAPER No. 14

MAPLE SUGAR.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.			No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Results on dry basis.			
		Total Ash.	Lead Number (Canadian.)		
R. J. WAUGH, INSPECTOR.					
	p. c.	p. c.			
. .....	3·62	0·88	3·53	54001	Genuine.
....	4·37	0·83	2·73	54002	"
... .	4·23	1·01	3·76	54003	"
....	5·02	1·18	3·98	54004	"
....	5·42	0·55	1·67	54005	Adulterated.—Notes 3 & 4
....	6·13	0·50	1·36	54006	" Notes 3 & 4.
... .	4·55	1·00	3·60	54007	Genuine.
....	2·42	1·17	4·23	54008	"
....	5·10	0·49	1·50	54009	Adulterated.—Note 4
....	5·94	0·83	3·18	54010	Genuine.
W. A. PETIPAS, TEMPORARY INSPECTOR.					
....	5·03	0·92	3·20	65854	Genuine.
....	4·58	1·05	3·44	65855	"
....	2·80	0·93	3·35	65857	"
....	4·08	1·32	5·11	65858	"
....	2·94	0·51	1·66	65859	Adulterated.—Note 4
E. F. McKEEN, TEMPORARY INSPECTOR.					
....	9·58	0·95	2·61	65855	Genuine.
... .	8·96	0·62	1·76	65810	Meets legal requirements

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF PRINCE EDWARD ISLAND—							
1915.							
May 7	Maple Sugar ..	60301	J. C. Crabbe, Charlottetown.	1 lb..	20	.....	CarveliBros., Charlottetown.
" 17	" ..	60303	Jenkins & Sons, Charlottetown.	1 " ..	20	Canadian Maple Exchange Ltd., Montreal.	.....
" 17	" ..	90304	Stewart & Sons, Charlottetown.	1 " ..	20	Maple Ltd., Toronto.	....
" 17	" ..	60305	Beer & Goff, Charlottetown.	4/5 " ..	15	Canadian Maple Exchange Ltd., Montreal.	N. Rattenbury Ltd., Charlottetown.
DISTRICT OF NEW BRUNSWICK—							
May 6	Maple Sugar...	66001	Slocum & Ferris, St. John	2 pkg.	50	Sussex Mercantile Co., Ltd., Elgin.	.....
" 6	" ..	66002	L. S. Peters, St. John....	2 "	48	H. Hawford, Geldart Elgin.	.....
" 8	" ..	66003	Wm. Baxter, St. John....	2 bxs.	40	R. N. Habley, Goshon, N.B.	....
" 10	" ..	66004	H. E. Williams & Co., Ltd., St. John.	2 "	50	Unknown....	Unknown.... ....
" 10	" ..	66005	W. Fenwick, St. John...	2 "	48	.....	Tait Rabkin Co., Elgin, N. B.
" 14	" ..	66006	T. E. Robinson, St. John.	1 lb..	25	Unknown....	Unknown.... ....
" 14	" ..	66007	J. W. Philips, St. John ..	1 "	25	. ...	Slocum & Ferris, St. John.
" 14	" ..	66008	McAlacy & Co., St. John.	1 "	25	....	Wm. Fenwick, St. John.
" 25	" ..	66009	Johnston & Kitchen, Fredericton.	1 "	35	James & Nelson Cliff, Lower Queensbury.	....
" 25	" ..	66010	W. H. Vanwart, Fredericton.	1 "	30	Sussex Mercantile Co., Elgin.	....
" 25	" ..	66011	C. H Burtt, Fredericton	1 "	25	W. L. Burtt, Sealand Station.	....
June 9	" ..	96012	H. O'Neill, St. Andrews.	3 bars	30	Sugars & Canners Ltd., Montreal.	....
" 15	" ..	66013	Jones & Brown, Norton, King's Co.	3 pkg.	30	Baird & Peters, St. John.	....
" 15	" ..	66014	E. Harmer, Ltd., Norton, King's Co.	1 "	25	....	R. G. Innes, Petitcodiac.
" 16	" ..	66015	W. B. McKay Co., Ltd., Sussex.	1 "	25	T. A. Groggin & Sons Elgin.	....

SESSIONAL PAPER No. 14

MAPLE SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.						No. of Sample.	Remarks, and Opinion of the Chief Analyst.
	Water.	Solids.	Results on dry basis.					
			Lead Number (Canadian).	Total Ash.	Water Soluble Ash.	Insoluble Ash.		
WM. A. WEEKS, INSPECTOR.								
	p. c.	p. c.		p. c.	p. c.	p. c.		
....	6·23	93·77	4·15	1·03	....	.....	60301	Genuine.
....	6·89	93·11	3·20	0·83	... .	.....	60303	"
.. ..	4·90	95·10	3·10	0·82	.. ..	... ..	60304	"
....	5·90	94·10	3·46	0·92	....	.....	60305	"
JOHN C. FERGUSON, INSPECTOR								
....	6·60	93·40	2·96	0·75	0·41	0·34	66001	Genuine.
....	9·60	90·40	3·23	0·75	0·37	0·38	66002	"
....	9·69	90·31	3·84	0·88	0·48	0·40	66003	"
....	8·92	91·08	2·30	0·64	0·42	0·22	66004	"
.....	9·74	90·26	2·25	0·69	0·49	0·20	66005	"
.. ..	5·98	94·02	2·37	0·79	. .	. ..	66006	"
... .	7·63	92·37	1·54	0·72	. ....	.....	66007	Adulterated.
. . ..	6·34	93·66	2·55	0·74	.....	.....	66008	Genuine.
....	4·03	95·97	2·75	0·78	.. .	.	66009	"
.. ..	5·62	94·38	2·06	0·74	.....	.....	66010	
.. ..	3·61	96·39	3·33	1·01	.....		66011	
.....	3·86	96·14	2·46	0·80			66012	"
. ...	4·69	95·31	3·29	0·99			66013	"
....	9·98	90·02	2·87	1·01			66014	"
.. ..	3·43	96·67	2·02	0·75			66015	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
						DISTRICT OF QUEBEC CITY—	
1915.							
April 23	Sucre d'erable.	56343	H. St. Cyrs, 95 du Pont, Quebec.	2 lb.	30	T. Bureau, Sault Momorency.	
" 20	"	56345	O. Lacroix, 19 St. Joseph, Quebec.	1 "	12	Louis Chevalier, St. Tite des Caps.	
" 20	"	56346	Elz. Turcotte, 74 Desfoses, Quebec.	2 "	30	Phil Vezina, Ange Gardien.	
" 20	"	56347	" "	2 "	30	H. Demers, Megantic, St. Pierre Baptiste.	
" 20	"	56348	" "	2 "	30	Unknown	
" 21	"	56349	Myrant & Poulot, Quebec.	1 "	15	Huot, Ange Gardien.	
" 21	"	56350	Chs. Riverin, 55 Couronne, Quebec.	1 "	15	Paré, St. Gervais.	
" 22	"	56351	Cantin & Frere, 271 St. Joseph, Quebec.	1½ "	24	Huot, Ange Gardien.	
" 23	"	56352	H. D. Marier, 174 Dorchester, Quebec.	1 "	16	Durand, St. Famille.	
" 23	"	56353	Z. Paquet & Co., 154 du Pont, Quebec.	1 "	13	Tremblay	
" 23	"	56354	G. L. Letourneau, 133 du Pont, Quebec.	2 "	26	Audet, St. Anselme.	
" 26	"	56355	C. O. Simard, 8 St. Jean, Quebec.	2 "	35	Vezina, Ange Gardien.	
" 26	"	56357	Jos. Savard, 35 St. Jean, Quebec.	2 "	35	Z. Gariepy, Ange Gardien.	
" 26	"	56358	A. Grenier, 94 St. Jean, Quebec.	2 "	35	A. Mathier, Ange Gardien.	
" 26	"	56361	A. Turcotte, 272 St. Jean, Quebec.	1 "	17	Hardy, St. Basile.	
						DISTRICT OF QUEBEC PROVINCE—J. AUDET, D. BROCHU,	
April 21	Sucre d'érable.	3833	C. Carbonneau, Ste. Marguerite.	1 lb.	25		
" 23	"	3835	A. Audet, Ste. Claire	1 "	25		
" 27	"	3836	F. Dallaire, St. Anselme.	1 "	25		
" 28	"	3837	J. Fortier, St. Edward	1 "	25		
May 15	Sucre.	3856	Lacasse & Audet, St. Edward.	2 "	30		
" 17	"	3859	Chas. Rodville, St. Benjamin.	3 "	25		
" 18	"	3860	Nap. Langelier, St. Prospere.	3 "	50		
" 25	"	3863	D. Towell, St. Leon de Standon.	3 "	50		
" 27	"	3857	A Clouthier, St. Odilon	3 "	35		
June 3	Sucre d'érable	3865	Jos. Tanguay, St. Nazaire	3 "	40		

SESSIONAL PAPER No. 14

MAPLE SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.			No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Results on dry basis.			
		Total Ash.	Lead Number (Canadian).		
F. X. W. E. BELAND, INSPECTOR.					
	p. c.	p. c.			
....	2·14	1·51	6·12	56343	Genuine.
.....	4·92	1·04	3·58	56345	"
... .	6·00	1·03	3·48	56346	"
.....	5·10	0·73	1·80	56347	"
....	5·44	1·30	3·86	56348	"
....	3·75	1·33	4·31	56349	"
....	8·45	1·12	3·82	56350	"
....	6·37	1·17	4·36	56351	"
... .	4·39	1·43	4·84	56352	"
....	6·91	1·46	4·66	56353	"
... .	8·16	1·27	3·29	56354	"
.. ..	6·48	1·10	3·77	56355	"
.....	6·20	0·87	2·42	56357	"
. ...	7·62	1·11	3·93	56358	"
....	5·64	0·96	3·34	56361	"
T. GENDREAU, N. CADIEUX, TEMPORARY INSPECTORS.					
....	4·34	0·91	2·92	3833	Genuine.
. . . .	3·80	0·91	3·92	3835	"
....	1·71	1·12	3·75	3836	"
....	4·62	1·25	3·86	3837	"
... .	7·22	1·41	5·35	3838	"
. ...	6·28	1·02	3·61	3839	"
....	5·25	1·04	4·39	3840	"
....	5·75	0·87	3·00	3845	"
....	7·58	1·08	3·90	3847	"
. ...	6·61	1·18	4·59	3905	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF QUEBEC PROVINCE—				
1915.							
June 8	Sucre d'erable.	3869	Louis Carrier, St. Honoré de Chenly.	3 lb.	50		
" 9	" ..	3870	Arthur Boutin, St. Gideon	3 "	50		
" 17	Sucre.....	3872	J. C. Bolduc, Ste. Méthode.	4 "	60		
May 3	Sucre d'érable.	3543	Alfred Pouliot, St. Philemon.	2 "	24	Pierre Gagnon, St. Philemon.	
" 4	" ..	3546	Cyrille Larochelle, St. Magloire.	2 "	24	Jos. Larochelle, St. Camille.	
" 4	" ..	3548	Alfred Labbe, St. Magloire.	2 "	28	L. Labbe, St. Magloire.	
" 4	" ..	3549	Louis Asselin, St. Sabin..	2 "	24	A. Labbe, St. Magloire.	
" 5	" ..	3553	Louis Laverdière, St. Magloire.	2 "	26	Jos. Laverdière, St. Magloire.	
" 6	" ..	3555	Philiberte Lavalle, Buckland.	2 "	24	Jos. Boutin, Buckland.	
" 6	" ..	3556	Alfred Audet, St. Damien.	2 "	24	Wm. Guilmet, St. Damien.	
" 7	" ..	3560	Jos. Robert, St. Damien.	2 "	24	Wm. Mercier, St. Damien.	
" 7	" ..	3561	" " ..	2 "	24	Amédé Audet, St. Damien.	
" 8	" ..	3570	Ant. Labrecque, St. Raphael.	2 "	25	Edouard Boufard, St Raphael.	
" 10	" .	3576	François Coté, Armagh ..	2 "	30	Pierre Coté, Armagh.	
" 10	" .	3577	Pierre Isabel, Armagh ...	2 "	28	Fr. Isabel, Armagh.	
" 10	" .	3579	Donat Brochu, Armagh ..	2 "	30	Alfred Royer, Armagh.	
" 10	" .	3583	Michel Cadrin, Armagh..	2 "	26	Charles Cadrin, Armagh.	
April 23	" .	2754	Nap. Letourneau, Montmagny.	2½ "	30	Damase Cloutier, St. Thomas.	
" 27	" .	2762	A. Caron, St. Pierre	1½ "	18	Vendor	
" 29	" .	2765	J. Z. Guimond, Cap St. Ignace.	1½ "	24	Michel Delage, Cap St. Ignace.	
" 29	" .	2766	W. Bernier, Cap St. Ignace.	2 "	25	Vendor	
" 24	" .	270	Pierre Simard, St. Hypolite.	1 "	20		
May 20	" .	56447	Hellem & Bros., Rimouski.	1 "	15	Babzile & Gagnon, St. Modiste.	
" 20	" .	56450	Joseph Garneau, Rimouski	1 "	17		A. Legaré & Fils, Quebec.
" 22	" .	56452	Pierre Berube, Fraserville.	1 "	13	Irene Calivette	
" 22	" .	56454	J. A. Chamard, Fraserville.	1 "	13	Thos. Chamard, St. Jean, Port Jolie.	
" 22	" .	56455	Joseph Vill, Fraserville..	1 "	17	Auguste St. Pierre, St. Cyrille.	
" 22	" .	56460	Damien & Cie, Fraserville.	1 "	15		O. Carbonneau, L'Islet.

SESSIONAL PAPER No. 14

MAPLE SUGAR.

Inspector's Report. (Is not an Expression of opinion.)	Results of Analysis.			No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Results on dry basis.			
		Total Ash.	Lead Number (Canadian.)		

Continued.

	p.c.	p.c.			
....	7·34	0·93	3·23	3869	Genuine.
....	4 92	1·00	3·45	3870	"
. .....	7·73	1·03	4·17	3872	"
....	7·79	1·19	4 64	3543	"
....	7·51	1·25	4 77	3546	"
... .	7·87	1 29	5 69	3548	"
....	8·07	1·36	5·69	3549	"
.. ..	4 97	1·41	5·47	3553	"
... .	6 41	1 25	4·62	3555	"
. ...	5·44	1 22	4·84	3556	"
. ...	4·01	1 22	4·46	3560	"
....	7 62	1 04	3 44	3561	"
....	5 19	1 43	5 37	3570	"
....	5 53	1 06	3 75	3576	"
....	5·40	1·03	3 94	3577	"
....	3 80	0 93	3 43	3579	"
.. ..	8·41	1 14	3 80	3583	"
. ...	1·79	1 16	4 93	2754	"
. .. .	5 04	1 29	3 97	2762	"
... ...	1 38	1 18	3 75	2765	"
... ...	1 21	1 19	4 12	2766	"
Purchased at St. Jerome Market.					
....	1·77	1·01	3 61	270	"
....	7 11	1 51	5 44	56447	"
. ...	7 04	1 50	4 50	56450	"
....	5 08	1 55	6 63	56452	"
. .. .	4 44	1 40	5 [illegible]	56454	"
....	2 70	1 29	5 17	56456	"
... .	3 11	1 29	4 07	56460	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer	Furnisher.
			DISTRICT OF QUEBEC PROVINCE—				
1915.							
June 2	Sucre d'erable.	56473	Joseph L. Drolet, Fraserville.	1 lb.	25	H. Belanger, St. Aubert.	
" 2	"	56474	Eugène Michaud, Fraserville.	1 "	14		Dominion Fish, Quebec.
" 2	"	56475	Joseph A. Michaud, Fraserville.	1 "	15	H. Belanger, St. Aubert.	
" 2	"	56476	Joseph Bernier, Fraserville.	1 "	15		O. Carbonneau, L'Islet.
" 4	"	56478	F. Lavali, St. Jean, Port Jolie.	1 "	10	Abraham Caron, St. Jean, Port Jolie.	
May 17	"	2488	J. A. Provencher, Matane.	1 "	18		
" 17	"	2489	N. Durette	1 "	20		
" 19	"	2496	A. F. Boutin, Mont Joli	1 "	13		
			DISTRICT OF THREE RIVERS—				
May 11	Maple Sugar.	67958	Narcisse Roberge, St. Felix de Valois.	1 lb.	15	Vendor	
" 14	"	67963	Ed. Joly, St. Cleophas	1 "	10	"	
" 8	"	67965	Paul Champagne, St. Jean de Matha.	3 "	30	"	
" 8	"	67966	Wilfrid Roy, St. Jean de de Matha.	2 "	20	"	
" 10	"	67967	Louis Desroches, St. Jean de Matha.	3 "	30	"	
" 11	"	67974	Louis Boucher, Castle Hill	1 "	10	"	
" 12	"	67975	Alexis Lepicier, Ste. Cecile	1 "	10	"	
" 12	"	67976	Michel Lepicier, Ste. Cicile	1 "	10	"	
" 13	"	67977	Veuve V. Ducharme, St. Cleophas de Brandon.	2 "	20	"	
" 24	"	69101	Nap. Gravel, St. Léon.	1 "	12	"	
			DISTRICT OF MONTREAL—				
April 30	Maple Sugar	67166	N. Trudeau, 248 Dandurand St., Rosemount, Montreal.	1½ lb.	24		Horne Food Co.
" 30	"	67167	J. E. Normandeau, 2252 Boul. Rosemount, Montreal.	1½ "	25		Gunn & Langlois
" 30	"	67168	A. Petit, 2424 Boul. Rosemount, Montreal.	1½ "	30		" "
" 30	"	67169	H. Pepin, Dandurand and 9th ave., Boul. Rosebount, Montreal.	1½ "	20		National Produce Co.

SESSIONAL PAPER No. 14

MAPLE SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.			No. of Sample.	Remarks and Op of the Chief Analyst.
	Water.	Results on dry basis.			
		Total Ash.	Lead Number (Canadian.)		
Concluded.					
	p. c.	p. c.			
.....	2·52	1·31	4·92	56473	Genuine.
.....	5·53	0·89	2·68	56474	"
.....	3·92	1·12	3·54	56475	"
.....	3·98	1·17	4·06	56476	"
.....	4·74	1·51	4·67	56478	"
.....	7·70	0·60	1·01	2488	Adulterated.
.....	5·30	1·56	5·78	2489	Genuine.
.....	3·61	1·17	4·82	2496	"
DR. V. P. LAVALLEE, INSPECTOR.					
.....	5·63	1·05	4·07	67958	Genuine.
.....	5·59	0·97	3·04	67963	"
.....	7·44	1·03	3·44	67965	"
.....	6·04	0·98	3·48	67966	"
.....	9·61	0·95	3·25	67967	"
.....	4·26	1·15	4·43	67974	"
.....	5·20	1·03	3·52	67975	"
.....	5·87	0·98	3·59	67976	"
.....	8·54	1·32	4·10	67977	"
.....	4·79	1·29	5·04	69101	"
D. J. KEARNEY, INSPECTOR.					
.....	3·17	0·13	0·01	67166	Adulterated
.....	2·95	0·89	3·09	67167	Genuine.
.....	1·79	1·23	4·45	67168	"
Was purchased as Compound Maple Sugar.	7·30	0·01	0·00	67169	Adulterated. Note 1.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF MONTREAL—	
1915.							
May 5	Maple Sugar.	67170	M. A. Payette, 217 Ontario st., Maisonneuve.	1 lb	15		W. Wolfe
" 5	" ..	67171	Phil. Cardoen, 35 Market, Maisonneuve.	1¾ "	28		Gunn & Langlois..
" 5	" ..	67172	D. Marion, 659 Ontario st., Maisonneuve.	1¾ "	24		N. Fountaine
" 5	" ..	67173	Pierre Serve, 858 Ontario st., Maisonneuve.	1½ "	24		Gunn & Langlois..
" 5	" ..	67174	A. Ouellette, 945 Colonial st., Montreal.	1¾ "	26		W. Champagne
" 5	" ..	67175	P. Deslieres, 1750 Cadiex st., Montreal.				
" 5	" .	67176	E. Beauchamp, 1731 Cadieux st., Montreal.	2¼ "	35		J. Gratton
" 5	" ..	67177	F. Legault, 1400 City Hall ave., Montreal.	1¾ "	23		Unknown
" 5	" ..	67178	P. Paquette, 1399 City Hall ave., Montreal.	1¼ "	16		"
" 5	" ..	67179	A. Boisvert, 1401 City Hall ave., Montreal.	1¾ "	25		J. Limoges
" 5	" ..	67180	J. A. Tardif, 1030 Henri Julien st., Montreal.	1¾ "	23		"
						DISTRICT OF EASTERN TOWNSHIP AND VALLEYFIELD—	
May 5	Maple Sugar	58116	J. B. St. Pierre, St. Hyacinthe.	1 blk.	10		
" 5	" ..	58117	L. Gendron, St. Hyacinthe.	1 "	12		
" 5	" ..	58118	J. Leduc, St. Hyacinthe.	1 "	30		
" 5	" ..	58119	Horace Robinson, St. Hyacinthe.	1 "	10		
" 10	" ..	58120	P. J. Girard, Richmond Est.	1 "	10		
" 10	" ..	58121	E. G. Pearson, Richmond Est.	1 "	25		
" 10	" ..	58122	Gun & Elliott	1 "	25	J. Hodge, Dennison Mills.	
" 10	" ..	58123	Alphonse Girard, Richmond Est.	1 "	12		
" 10	" ..	58124	F. J. Verrill, Melbourne.	1 "	15	Chester & Fleck, Melbourne.	
" 10	" ..	58125	E. E. Biron, Sherbrooke..	1 "	10		
" 10	" ..	58126	Herbert & Fortier, Sherbrooke.	1 "	20	J. Lapointe, Compton.	
" 10	" ..	58127	Bernard & Cie, Sherbrooke.	1 "	10		
" 10	" ..	58128	Geo. F. Moore, Sherbrooke.	1 "	15		
" 10	" ..	58129	J. Audet, Coaticook	1 "	12	J. Vallee, Compton	
" 12	" ..	58130	Woodman & McKee, Sherbrooke.	1 "	18	H. H. Edwards, Coaticook.	

SESSIONAL PAPER No. 14

MAPLE SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.			No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Results on dry basis.			
		Total Ash.	Lead Number (Canadian).		
Concluded.					
	p. c.	p. c.			
.....	7·08	0·79	2 10	67170	Genuine.
.....	3·44	1·32	4·44	67171	"
.....	7·68	0·87	2·81	67172	"
.....	3 17	1·25	4·40	67173	"
.....	7·21	0·74	2 46	67174	"
.....	7·10	0·89	3·14	67175	"
.....	3 52	0·89	3 61	67176	"
.....	5·44	1·08	3 85	67177	"
.....	1·46	0·77	2·31	67178	"
.....	6·28	1·00	3 06	67179	"
.....	2·48	1·03	3·56	67180	"
J. J. COSTIGAN, INSPECTOR.					
.....	2 05	0 63	2·87	58116	Genuine.
.....	7 40	0 99	2 93	58117	"
Concord	4 39	0 62	2 05	58118	"
.....	2 32	1 30	0 42	58119	Adulterated.
.....	6 10	0 94	2 81	58120	Genuine.
.....	2·03	0 98	3 17	58121	"
.....	2 47	0 90	3 30	58122	"
.....	5 09	0 87	2 44	58123	"
.....	6 97	0 99	3 53	58124	"
.....	3 85	0 07	0 03	58125	Adulterated – Note 2.
.....	3 74	0 85	2 52	58126	Genuine.
.....	5 68	0 86	2 39	58127	"
.....	4 10	1 02	3 14	58128	"
.....	3 16	0 93	3 41	58129	"
.....	2 16	0 88	2 82	58130	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF EASTERN TOWNSHIPS AND VALLEYFIELD—							
1915.							
April 21	Maple Sugar..	57916	Joseph Miron, Hawkesbury.	1 lb.	15	Arthur Aubrey, Mont Oscar.	.....
" 21	" ..	57917	Laurin & Frère, Hawkesbury.	1 cake	17	John Milner, Hawkesbury.	.....
" 22	" ..	57918	Graham & Hunter, St. Lambert.	1 "	35	....	Lessiham Graham, Montreal.
" 22	" ..	57919	J. A. Tremblay & Cie, St. Lambert.	1 "	28	.....	Gunn Langlois,
" 23	" ..	57920	P. J. Roy, St. Johns, P.Q.	1 blk.	16	.....	.....
" 23	" ..	57921	A. Foisy, St. Johns, P.Q.	1 "	16	W. Hodge, Stanbridge East.	.....
" 23	" ..	57922	W.K. Simpson, St. Johns, P.Q.	1 "	15	W. S. Clark, Highwater.	.....
" 27	" ..	57923	E. Bougie, Valleyfield...	1 "	26	.....	.....
" 27	" ..	57924	Leduc & Prieur, Valleyfield.	1 "	28	.....	.....
May 1	" ..	57925	Pringle Stark Co., Huntingdon.	1 "	50	Vendors...	.....
" 3	" ..	57926	Jean Simon, Longueuil...	1 "	27	.....	Gunn Langlois, Montreal.
" 3	" ..	57927	Charles Lord, Longueuil.	1 "	25	.....	....
" 3	" ..	57928	L. M. Lamarre, Longueuil	1 "	15	G. Gagnon, Lawrenceville.	....
" 3	" ..	57929	V. Dare, Longueuil.....	1 "	23	....	.. ..
" 3	" ..	57930	Gustave Bourdon, Longueuil.	1 "	24	.....	....
DISTRICT OF OTTAWA—							
April 17	Maple Sugar.	63601	A. M. Parkinson, Kemptville.	1 lb..	15	James Hyndman, Oxford, Ont.	.....
" 20	"	63604	Mrs. J. Laurie, Perth, Ont.	1 " ..	20	Mr. Purdon, McDonald's Corners.	.....
" 20	"	63605	Mrs. J. Sutherland, Perth, Ont.	¾ " ..	15	Sugars & Canners, Ltd., Montreal.	....
" 27	"	63625	P. J. Campbell, Renfrew.	1 " ..	15	A. J. Shepard, Frelighsburg. P.Q.	....
" 27	"	63628	A. E. Leach, Renfrew....	1 cake	10	Canada Maple Exchange, Montreal.	C. E. Plain, Ottawa.
" 27	"	63630	H. Brydge, Renfrew. ...	1 " ..	10	Ramsays, Ltd., Montreal.	....
" 27	"	63632	P. J. Frood, Renfrew ...	1 box.	20	Canada Maple Exchange, Ltd., Montreal.	....
" 30	"	63635	J. Bambrick, George st., Ottawa.	1 cake	50	L'Asso. Co-Op. Agr., 27 William st., Montreal.	Moyneur's, Ltd., Ottawa.
" 30	"	63636	Moyneurs, Ltd., Ottawa..	1 "	20	....	L. Assoc. Co-Op. Agr., Montreal.
" 30	"	63640	Wall & Co., Byward Market, Ottawa.	1 "	20	.....	Moyneur's, Ltd., Ottawa.
" 30	"	63642	L. Malette, Dalhousie st., Ottawa.	1 "	10	Maple's, Ltd., Toronto.	J.G. Whyte & Sons, Ottawa.

SESSIONAL PAPER No. 14

MAPLE SUGAR.

Inspector's Report, (Is not an expression of opinion.	Results of Analysis.			No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Results on dry basis.			
		Total Ash.	Lead Number. (Canadian).		
Concluded.					
	p. c.	p. c.			
....	4·24	1·31	4·74	57916	Genuine.
....	6·64	1·36	4·34	57917	"
....	2·84	1·16	4·16	57918	"
....	2·42	1·26	4·29	57919	"
....	7·24	0·17	0·07	57920	Adulterated.—Note 1.
. .....	2·68	1·01	3·24	57921	Genuine
....	6·41	0·82	2·62	57922	
....	8·04	0·84	2·73	57923	
.. ..	5·47	1·23	3·79	57924	
. .....	4·72	0·65	2·46	57925	"
....	4·59	1·05	3·69	57926	"
.....	4·25	0·96	3·50	57927	"
... .	6·44	0·74	2·19	57928	
....	5·78	0·91	3·42	57929	
....	8·18	1·02	3·39	57930	
J. A. RICKEY, INSPECTOR.					
....	5·63	0·81	2·35	63601	Genuine
... .	2·46	1·10	3·40	63604	"
.....	4·07	0·88	3·59	63605	"
. ...	8·59	0·91	2·81	63625	"
Labelled Small's Genuine, Pure Standard Maple Sugar.	5·45	1·06	4·18	63628	"
....	3·40	0·53	1·64	63630	Adulterated
Granulo.	1·32	0·18	0·32	63632	" —Note 2
	6·97	0·96	2·41	63635	Genuine
	8·11	0·95	3·62	63638	"
	3·46	0·93	2·96	63640	"
Sample from Box labelled, Pure Maple Sugar	2·48	0·40	0·90	63642	Adulterated.—Note 4

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF KINGSTON—							
1915.							
April 28	Maple Sugar.	68011	J. R. B. Gage, Kingston.	1 lb..	30	Sugars & Canners, Ltd., Montreal.	.....
May 4	"	68012	McGinty & Lynch, Belleville.	1 " ..	25	.....	Warne Bros., Toronto.
" 4	"	68013	R. Elvins, Belleville.....	1 " ..	30	.....	J. Sloane & Co., Belleville.
" 4	"	68014	W. M. Fox & Co., Cobourg.	1 " ..	30	Maple Tree Producers, Ltd., Montreal.	.....
" 4	"	68015	E. Guillet, Cobourg ...	1 " ..	45	.....	Stevens & Soloman Hamilton.
" 4	"	68016	W. Burnet, Cobourg.....	1 " ..	30	.....	Armstrong & Pafford, Toronto.
" 5	"	68017	F. H. Brown, Port Hope.	1 " ..	30	.....	White & Co., Toronto.
" 5	"	68018	W. D. Stephens, Port Hope.	1 " ..	30	.....	H. P. Eckardt & Co., Toronto.
" 5	"	68019	A. Pearson, Peterboro....	1 " ..	30	.....	Rishors, Ltd., Peterboro.
" 5	"	68020	J. Sutherland, Peterboro.	1 " .	40	Sugars & Canner's Ltd., Montreal.	.....
DISTRICT OF TORONTO—							
May 19	Maple Sugar.	67024	J. Bigley, 104 Queen st., Toronto.	2 bars	20	.....	A. Mayer, Toronto.
" 19	"	67025	J. C. Craig, 468 Spadina ave., Toronto.	2 "	20	.....	Sugars & Canners, Ltd., Toronto.
" 20	"	67026	B. S. McMurty, 2511 Yonge st , Toronto.	2 "	20	Maple Tree Producers Association, Montreal.	.....
" 22	"	67027	F. E. Cleland, 400 Bloor st. w., Toronto.	2 "	20	.....	A. Mayer, Toronto.
" 22	"	67028	C. N. Allen, 551 Bloor st. w., Toronto.	2 "	20	.....	Unknown .....
" 11	"	67029	Thos. Hook, Markham...	2 "	20	.....	F. W. Humphrey, Toronto.
" 12	"	67030	J. Cherpaw, Uxbridge ...	2 "	20	.....	John Sloan & Co., Toronto.
" 12	"	67031	Willard & Co., Port Perry.	2 "	20	.....	F. W. Humphrey, Toronto.
" 14	"	67032	J. J. Hatley, Orillia.....	1 lb.	20	Mrs. Weir, Tudhope.	.....
" 15	"	67033	H. E. Gladstone, Midland.	2 bars.	20	.....	W. H. Gillard & Co., Hamilton.
DISTRICT OF HAMILTON—							
April 26	Maple Sugar.	66948	A. H. Foote, Fergus. ...	2 bars	20	.....	McLaughlan & Sons, Owen Sound.
" 27	"	66949	J. S. Ireland, Mount Forest.	¾ lb..	20	.....	Geo. E. Bristol & Co., Hamilton.
" 29	"	66950	A. Fedy, Mildmay. ...	2 bars	20	.....	T. B. Escott, London.
" 29	"	66951	Ballachey Laidlow & Co., Paisley.	¾ lb..	20	.....	Unknown. .....

SESSIONAL PAPER No. 14

MAPLE SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.			No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Results on dry basis.			
		Total Ash.	Lead Number (Canadian).		
JAS. HOGAN, INSPECTOR.					
	p. c.	p. c.			
....	4·86	1 22	4·92	68011	Genuine.
... .	3·85	0·53	1·87	68012	Meets legal requirements.
.....	4·57	0·58	2·00	68013	Genuine.
....	7·27	0 86	3·05	68014	"
... .	1·70	0·58	1·82	68015	Meets legal requirements.
....	0 83	0 69	2 74	68016	Genuine.
....	3 19	0·57	2 01	68017	"
Vendor stated that sugar was last year.	4·36	0 40	1 08	68018	Adulterated.—Note 4.
....	4·23	1·10	4 50	68019	Genuine.
....	5·02	1·46	5 58	68020	"
H. J. DAGER, INSPECTOR.					
....	3 93	0 64	2·32	67024	Genuine.
....	5·04	0 92	3 17	67025	"
....	1 91	0 81	3 07	67026	"
....	3 50	0·64	2 26	67027	"
. . ..	3 16	0 69	2 58	67028	"
....	3 27	1 25	4 75	67029	"
....	3 08	0·32	1 57	67030	Adulterated.—Note
....	3 16	0 49	1 15	67031	" —Note 4.
....	3 93	0 94	3 48	67032	Genuine.
....	3 14	0 65	2 34	67033	"
H. J. DAGER, ACTING INSPECTOR.					
.....	4 21	0 59	1 76	68048	Meets legal requirements.
.....	3 05	0 39	0 98	68049	Adulterated.—Note 4.
.....	3 92	0 36	0 96	68050	"
.....	3 21	0 60	2 12	68051	Genuine.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF HAMILTON—
1915.							
April 30	Maple Sugar.	66952	S. Bourgeman, Chisley...	2 bars	20	. . ..	McCormick Mfg. Co., London.
" 30	"	66953	D. A. McClean, Owen Sound.	2 "	20	.....	McLaughlan Sons Co., Owen Sound
May 4	"	66954	B. H. Walsh, Oakville...	2 "	20	....	Laing & Sons, Hamilton.
" 4	"	66955	W. W. Cume, Burlington.	2 "	20	.....	" " ..
" 5	"	66956	P. J. Galvin, 45 York st., Hamilton.	2 "	30	.....	McClatchie Bros, Cowansville, P.Q.
" 5	"	66957	Holmwood Produce Dairy Co., 477 King st. E., Hamilton.	2 "	20	....	....
							DISTRICT OF WINDSOR—
April 21	Maple Sugar.	54767	J. P. Sheppard, Clinton..	3 bars	30	....	E. Adams & Co., London.
" 21	" ..	54769	W. T. O'Neil, Clinton....	3 "	30	....	H. P. Eckhardt, Toronto.
" 21	" ..	54774	E. E. Hunniford, Clinton	3 "	30	Maples Ltd., Toronto	.....
" 22	" ..	54781	R. S. Clark, Seaforth	3 "	30	....	M. Masurett & Co., London.
" 22	" ..	54788	W. R. Cole, Mitchell.....	3 "	30	....	Unknown .....
May 3	" ..	54601	W. H. Tricker, Sarnia....	3cakes	30	.....	McCormick Mfg. Co., London.
" 3	" ..	54602	Jas. Galbraith, Sarnia....	3 "	55	A. W. Westover, Sutton Junction.	....
" 3	" ..	54603	R. Wanless & Co., Sarnia	3 "	25	Geo. Setler, Arcona.	....
							DISTRICT OF MANITOBA—
April 28	Maple Sugar.	61262	The T. Eaton Co. Ltd., Winnipeg.	1 lb..	30	Jas. Davidson, Waterloo Jct.	.....
" 28	" ..	61263	Hudson Bay Co., Winnipeg.	1 " ..	30	Can. Maple Exchange Ltd., Montreal.	....
" 29	" ..	61264	W. J. Sutherland, Winnipeg.	1 " ..	30	.....	.....
" 29	" ..	61265	Hardy & Buchanan, Winnipeg.	1 " ..	20	Jas. A. Grubb, West Shefford, P.Q.	.....
May 10	" ..	61266	J. A. McDowell, Portage ave., Winnipeg.	1 " ..	30	Can. Maple Exchange Co., Montreal.	....
" 11	" ..	61267	Rockwood Store, 476 Portage ave., Winnipeg.	½ " ..	15	Small's, Montreal...	.....
" 11	" ..	61268	H. E. Weldon & Co., Portage ave., Winnipeg.	1 " ..	20	.....	. . ..
" 18	" ..	61269	P. W. Hutton, Minnedosa.	1 " ..	15	... .	Telfer Bros., Winnipeg.
" 27	" ..	61270	Bentrand & Co., Brandon	1 " ..	30	.....	.....
" 27	" ..	61271	Mutter Bros., Brandon...	1 " ..	35	Maple Tree Producers Assn., Montreal.	.. ..

SESSIONAL PAPER No. 14

MAPLE SUGAR.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.				No. of Sample.	Remarks, and Opinion of the Chief Analyst.
	Water.	Results on dry basis. Total Ash.	Results on dry basis. Lead Number (Canadian).	Solids.		
Concluded.						
	p. c.	p. c.		p. c.		
.....	3·07	0·08	0·03	.....	66952	Adulterated.—Notes 5 and 3.
....	2·93	0·62	2·47	.....	65953	Genuine.
....	3·26	0·52	1·13	....	66954	Adulterated.—Notes 3 and 4.
.....	4·22	0·57	1·97	.....	66955	Genuine
... .	4·54	0·75	2·71	....	66956	"
.. ..	4·58	0·84	2·87	....	66957	"
JOHN TALBOT, INSPECTOR.						
..... .	3·80	0·68	2·58	.. ..	54767	Genuine.
....	2·99	0·83	3·03	.. . .	54769	"
....	3·72	0·92	3·81	.....	54774	"
....	2·82	0·56	1·93	.....	54781	"
.....	3·76	0·48	1·49	... .	54788	Adulterated.—Note 4
....	5·02	0·18	0·08	.....	54601	"
... .	4·66	0·89	2·95	.....	54602	Genuine.
... .	2·01	0·91	2·84	.....	54603	"
A. C. LARIVIERE, INSPECTOR.						
....	1·78	0·83	3·57	.....	61262	Genuine
....	3·50	0·95	2·62	.....	61263	"
Pride of Canada	2·62	0·82	3·21	.....	61264	"
....	4·53	0·64	1·19	.....	61265	Adulterated.
....	7·16	.....	7·58	92·84	61266	Genuine
....	7·68	.....	4·20	92·32	61267	"
.....	5·43	.....	3·65	94·57	61268	"
Small's.	7·14	.....	3·51	92·86	61269	"
....	8·70	.....	3·47	91·30	61270	"
.....	5·52	.....	3·29	94·48	61271	"

BULLETIN No. 324—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF SASKATCHEWAN—				
1915.							
April 28	Maple Sugar.	66365	Chalton & Tetreau, Gull Lake.	1 lb..	25	Paulin Chambers Co. Winnipeg.	.....
May 3	" ..	66375	A. McDonald Co., Moose Jaw.	1 " ..	15	Maples Ltd., Toronto.	....
			DISTRICT OF ALBERTA—				
May 18	Maple Sugar	52162	Hudson's Bay Co., Edmonton.	1 lb..	30	E. J. Berry, Brome, P.Q.	.....
" 20	" ..	52163	John Irwin Co., Edmonton.	1 " .	25	" "	....
" 21	" ..	52164	Pryce Jones (Canada) Ltd. Edmonton.	1 " .	30	" "	....
June 16	" ..	52165	Sprague & Williamson, Medicine Hat.	1 " .	25	J. Brock, Bolton Centre, P.Q.	....
			DISTRICT OF ROCKY MOUNTAINS—				
April 26	Maple Sugar	61806	Trail Grocery, Trail . ..	1 lb..	40	Can. Maple Exchange, Montreal.	....
May 20	" .	61812	Ira R. Manning, Cranbrook.	1 " .	30	Maples Ltd., Toronto.	... .
" 20	" ..	61824	E. G. Gwynne, Cranbrook	1 " .	20	The Maple Tree Products Ass'n., Montreal.	..... .
			DISTRICT OF VANCOUVER—				
May 7	Maple Sugar	55246	The Fairview Grocery, 2242 Granville st., Vancouver.	2 cks.	30	Maples Ltd., Toronto.	.....
" 7	" ..	55247	Mills & McAdam, 2039 4th Ave. W., Vancouver	2 " .	20	Sugars & Canners, Montreal.	....
" 7	" ..	55248	Morrow & Deane, 7th Ave. and Yew st., Vancouver.	2 " .	25	Maples Ltd., Toronto.	....
" 10	" ..	55249	Dickie's Grocery, Ltd., 660 Hornby st., Vancouver.	2 " .	20	Maple Tree Producers Ass'n., Montreal.	....
" 10	" ..	55250	S. Pritchard, 950 Robson st., Vancouver.	2 " .	20	Maples Ltd., Toronto.	. .. .
" 10	" ..	55251	I. X. L. Grocery, 1013 Robson st., Vancouver.	2 " .	20	Maple Tree Producers Ass'n., Montreal.	....
" 10	" ..	55252	Robson Grocery, 1028 Robson st., Vancouver.	2 " .	20	" "	.....
" 10	" .	55253	C. A. Welsh, Ltd., 681 Columbia st., New Westminster.	2 " .	20	Maples Ltd., Toronto.	.....

SESSIONAL PAPER No. 14

MAPLE SUGAR.

Inspector's report. (Is not an expression of opinion).	Results of Analysis.			No. of Sample.	Remarks and Opinion of the Cheif Analyst.
	Water.	Results on dry basis.			
		Total Ash.	Lead Number (Canadian).		
L. H. HALL, INSPECTOR.					
	p. c.	p. c.			
.....	2·15	0·97	0·93	66365	Adulterated.
.....	2·57	0·83	3·03	66375	Genuine.
A. W. R. MARKLEY, INSPECTOR.					
.....	4·07	0·78	2·29	52162	Genuine.
.....	4·84	0·77	2·73	52163	"
.....	5·99	0·73	2·48	52164	"
.....	7·93	0·79	2·70	52165	"
THOS. PARKER, INSPECTOR.					
Small's	2·88	0·95	3·03	61806	Genuine
.....	5·87	0·74	2·86	61812	"
.....	2·07	0·93	3·83	61824	"
E. J. MORGAN, INSPECTOR.					
.....	3·92	0·73	3·06	55246	Genuine
.....	2·40	0·78	3·15	55247	"
.....	4·38	0·60	2·12	55248	"
.....	1·71	0·81	3·14	55249	"
.....	3·98	0·80	3·45	55250	"
.....	1·88	0·78	2·64	55251	"
.....	1·88	0·87	3·00	55252	"
.....	3·29	0·78	3·07	55253	"

BULLETIN No. 324—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF VANCOUVER—				
1915.							
May 7	Maple Sugar.	55254	Overwaitea Co., 746 Columbia st., New Westminister.	2 cks.	20	Maple Tree Producers Ass'n., Montreal.	.....
" 11	" ..	55255	Henderson's Groceries, Ltd., Pender and Nicola sts., Vancouver.	2 " .	20	" "	.....
			DISTRICT OF VICTORIA—				
May 31	Maple Sugar	66716	West End Grocery Co, Ltd., 1002 Govt. st., Victoria.	3 blks.	45	Maples Ltd., Toronto.	.....
June 8	" .	66722	Acton Bros., 1317 Douglas st., Victoria.	1 lb..	30	" "	.....
" 10	" ..	66736	The Cook St. Grocery, 1023 Cook st., Victoria.	1 " .	15	.....	R. P. Rithet & Co. Victoria.
" 21	" ..	66737	H. O. Kirkham & Co., Ltd. 1109 Govt. st., Victoria.	3 blks.	30	....	" "

SESSIONAL PAPER No. 14

MAPLE SUGAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.			No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Results on dry basis.			
		Total Ash.	Lead Number (Canadian).		
Concluded.					
	p.c.	p.c.			
.....	2·02	0·86	2·46	55254	Genuine.
.....	2·43	0·86	3·11	55255	"

D. O'SULLIVAN, INSPECTOR.

.....	4·95	0·56	1·90	66716	Meets legal requirements.
.....	4·45	0·80	3·52	66722	Genuine.
.....	1·65	0·87	3·37	66736	"
.....	3·85	0·90	3·61	66737	"

APPENDIX P.

BULLETIN No. 325—MAPLE SYRUP.

OTTAWA, October 15, 1915.

J. U. VINCENT, Esq.,
Deputy Minister Inland Revenue.

SIR,—I beg to hand you a report dealing with two hundred and forty-three (243) samples purchased by our inspectors throughout the Dominion of Canada as Maple Syrup. This article is legally defined by Order in Council of April 15, 1915, and in force from May 15, 1915, and is required to meet the following specifications:—

STANDARDS FOR MAPLE SYRUP.

"Maple syrup shall be syrup made by the evaporation of maple sap, or by the solution of maple concrete in water, and contain not more than thirty-five (35) per cent of water, and an imperial gallon of maple syrup, measured at ordinary temperature of the air, shall weigh not less than thirteen pounds three ounces. The dry substance of maple syrup shall meet all the standards for maple sugar.

Provided always that the Governor in Council may from time to time vary and change the said standards for maple sugar and maple syrup."

Section 29*a* of the Amending Act, provides as follows:—

"1. No person shall manufacture for sale, keep for sale, offer or expose for sale, or sell, any article of food resembling or being an imitation of maple sugar or maple syrup, or which is composed partly of maple sugar or maple syrup, and which is not pure maple sugar or pure maple syrup.

"2. Any maple sugar or maple syrup which is not up to the standard prescribed by the sixth schedule to this Act, or, if such standard is changed by the Governor in Council, to such standard as the Governor in Council may from time to time prescribe, shall be deemed to be adulterated within the meaning of this Act.

"3. The word "maple" shall not be used, either alone or in combination with any word or words, or letter or letters, on the label or other mark, illustration or device on a package containing any article of food, or on any article of food itself, which is not pure maple sugar or pure maple syrup, and any article of food labelled or marked in violation of this subsection shall be deemed to be adulterated within the meaning of this Act."

The standards referred to above as obtaining for maple sugar, and involved in the definition of maple syrup, are as below:—

"Maple sugar shall be entirely the solid product resulting from the evaporation of maple sap, or of maple syrup, and contain not more than ten (10) per cent of water; and yield not less than six-tenths (0·6) of one per cent of ash, reckoned

on the dry matter of the sugar when incinerated in such a way as to assure the earths being present as salts and not as oxides and not less than twelve one-hundredths (0·12) of one per cent of ash, insoluble in water, employed as described below and yielding a lead number not less than one and seven-tenths (1·7) when worked by the Canadian method, nor less than one and two-tenths (1·2) when worked by the Winton method.

"Minute traces of substances such as gelatine, albumen, isinglass, etc., which may have been employed as refining or clarifying agents in manufacture shall not be regarded as adulterants."

As judged by these standards, the samples herein reported give the subjoined results:—

	Samples.
Found genuine	192
Meet legal requirements	4
Doubtful	1
Adulterated under Act	42
Illegal articles	4
Total	243

In four cases, while the analysts' numbers are within the legal minimum, they are such as to justify some doubt regarding the genuineness of the samples; and in one sample (No. 66961) the results are doubtfully convincing.

I would respectfully advise publication of this report as Bulletin No. 325.

I have the honour to be, sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA							
1915.							
May 19	Maple Syrup	54011	H. A. Hart, Halifax....	1 qt.	40	Unknown.	E. W. Crease & Son, Halifax.
" 20	"	54012	Jas. McGregor, "	1 "	40	Can. Maple Exchange, Montreal.	John Tobin & Son, Halifax.
" 20	"	54013	H. J. Hopgood & Son. Halifax.	1 "	40	A. W. Westover, Sutton Jct., P. Q.	Mfr. . . ..
" 20	"	54014	F. S. Short, Halifax.....	1 "	35	Maples Ltd., Toronto.	John Tobin & Son, Halifax.
" 21	"	54015	J. L. Wilson & Co., Halifax.	1 "	32	Ramsays Ltd., Montreal.	Mfr . . . . .
" 21	"	54016	Bauld Bros. Ltd., Halifax	1 "	30	Maples Ltd., Toronto.	" .. ..
" 21	"	54017	T. F. Courtney & Co., "	1 pt.	20	Knox M. Dodge, Mapleton, N.S.	E. W. Crease & Son, Halifax.
" 21	"	54018	E. W. Crease & Son, "	1 qt.	50	" ..	Mfr. ... ...
" 25	"	54019	John Tobin & Co., "	1 "	30	Can. Maple Exchange, Montreal.	" ....
DISTRICT OF NOVA SCOTIA—							
June 4	Maple Syrup	65856	A. A. McDonald, New Glasgow.	1 bot.	25	T. Upton Co., Hamilton.	Mfr .....
" 4	"	65865	A. J. Roop, New Glascow	1 "	40	Maples Ltd., Toronto.	R. McGregor & Sons, New Glasgow.
" 4	"	65866	D. J. Murray, "	1 "	35	Angus Fraser, Garden of Eden.	Mfr. ....
DISTRICT OF CAPE BRETON—							
May 6	Maple Syrup	63809	Hennigers, Sydney.... ..	1½ pt.	30	Milford Crowe, Mapleton, N. S.	....
" 6	"	63812	Walters Confectionery, Sydney.	3 bots.	21	Maples Ltd., Toronto.	....
DISTRICT OF PRINCE EDWARD ISLAND—							
May 7	Maple Syrup.	60195	W. W. Walker, Charlottetown.	1 bot.	35	Sugars & Canners, Ltd., Montreal.	....
" 7	"	60196	J. C. Crabbe, "	1 "	35	.. . .	Carvell Bros., Charlottetown.

SESSIONAL PAPER No. 14

MAPLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Calculated to Water Free Basis.						
			Lead Number Canadian.	Total Ash.	Water Soluble Ash.	Insoluble Ash.	Malic Acid Value.		
R. J. WAUGH, INSPECTOR.									
	p. c.	p. c.		p. c.	p. c.	p. c.	p. c.		
....	30·67	69 33	3 20	0·95	.....	.....	.....	54011	Genuine.
Canada's Best	34·42	65·58	2·00	0·67	.....	.....	.....	54012	"
....	33·38	66·62	2·28	0·86	.....	.....	.....	54013	"
Old Tyme.....	33·43	66·57	0·62	0 31	.....	.....	.....	54014	Adulterated.
Snowshoe..... . .	31 86	68·14	2 32	0·74	.....	.....	.....	54015	Genuine
Old Tyme	34·91	65 06	0 66	0 41	.....	.....	.....	54016	Adulterated.
....	32·82	67·18	3·18	0·84	.....	.....	.....	54017	Genuine
. . ..	34 32	65·68	3·30	0·97	.....	.....	.....	54018	"
....	32·10	67 90	1 73	0·58	.....	.....	.....	54019	Meets legal requirements.
W. A. PEPTIPAS, TEMPORARY INSPECTOR.									
... .	33 76	67·24	0 99	0 60	.....	.....	.....	65858	Adulterated.
. . . .	36·07	63 93	1 04	0·40	.....	.....	.....	65863	"
. . . . .	37 32	62 68	1 54	1·50	.....	.....	.....	65866	Genuine
E. F. McKEEN, TEMPORARY INSPECTOR.									
....	31 38	68 62	2 56	0 82	.....	.....	.....	65812	Genuine
.... ..	35 98	61 02	0 96	0 43	.....	.....	.....	65813	Adulterated
WM. A. WEEKS, INSPECTOR.									
....	32 08	67 92	1 87	0 66	0 44	0 22	.....	65814	Genuine.
.... .	34 63	65 37	1 84	0 73	0 48	0 25	.....	65815	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
DISTRICT OF NEW BRUNSWICK—							
1915.							
May 6	Maple Syrup	66016	J. W. Parlee, St. John...	1 bot.	35	John Rossborough, Bear Island, N. B.	.. ..
" 6	" ..	66017	Slocum & Ferris. St. John	1 "	35	Sussex Mercantile Co., Ltd., Elgin, N. B.	.....
" 6	" ..	66018	L. S. Peters, St. John....	1 "	35	T. A. Groggin & Son, Elgin. N. B.	.....
" 8	" ..	66019	H. D. Farris, St. John....	1 "	35	Chester Morrison, Granite Hill. N.B.	.....
" 8	" ..	66020	W. A. Porter, St. John..	1 "	35	Fred Barr, Lower Line. Queensbury, N. B.	....
" 14	" ..	66021	P. Nase & Son, St. John..	1 "	35	Brown Bros., Upper Bear Island, N. B.	....
" 14	" ..	66022	McAlary & Co., Ltd., St. John.	1 "	40	John Inch & Son, Burts Corners. N. B.	....
" 14	" ..	66023	R. Jones, St. John. ...	1 "	30	Tait Rabkin Co., Elgin, N. B.	Wm. Fenwick, St. John.
" 25	" .	66024	Johnston & Kitchen, Fredericton.	1 "	35	Jones & Nelson Cliff Lower Queensbury	.....
" 25	" ..	66025	A. E. Eardley, Fredericton.	1 "	30	Yerxa Bros., Lower Line, Queensbury.	....
" 25	" ..	66026	Jerxa Grocery Co., Woodstock.	1 "	30	Wesley Sinnett, Granite Hill.	....
June 8	" ..	66027	S. B. Hunter, Harvey Station.	1 "	30	C. S. Brown, Lower Queensbury.	.....
" 16	" ..	63028	Snssex Mercantile Co., Sussex.	1 "	30	Vendors..... .	.....
" 16	" ..	66029	H. H. Keirstead, Sussex.	1 qt.	50	Sussex Mercantile Co.	.....
" 17	" ..	66030	David Steaves, Moncton..	1 bot.	30	" ...	.....
DISTRICT OF QUEBEC CITY—							
April 20	Sirop d'erable	56330	O. Lacroix, 19 rue St. Joseph, Quebec.	1 chop	15	Jos. M. Paquet, (E. B. Squibb), New York.	Jos. M. Paquet...
" 20	" ..	56331	Ez. Turcotte, 74 Defoses, Quebec.	1 "	27	Jos. M. Paquet.....	O. Blouin.....
" 21	" ..	56332	Myrant & Pouliot, Quebec	1 "	20	Mr. Dupuis, St. Jean Isle, Orleans.	O. Blouin, St. Jean Ile, Orleans.
" 21	" ..	56333	" " ..	1 "	20	M. Desfrene, Ile Orleans.	" ....
" 21	" ..	56334	Chas. Riverin, 55 Couronne, Quebec.	1 "	18	Gervais, Pont Rouge.	Manufacturer ....
" 22	" ..	56335	Arthur Drolet, 764 St. Valier. Quebec.	1 "	30	Unknown.....	Unknown..... .....
" 22	" ..	56336	T. Bedard, 728 St. Valier, Quebec.	1 "	40	Ludger Leclerc, Cap. Sante.	Manufacturer.....

SESSIONAL PAPER No. 14

MAPLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Calculated to water free basis. Lead Number (Canadian)	Total Ash.	Water Soluble Ash.	Insoluble Ash.	Malic Acid Value.		
JOHN C. FERGUSON, INSPECTOR.									
	p. c.	p. c.		p. c.	p. c.	p. c.	p. c.		
... .	36·30	63·70	3·02	0·88	0·50	0·38	.....	66016	Genuine
....	36·36	63·64	2·50	0·79	0·41	0·38	.....	66017	"
.. ..	31·77	68·23	2·58	0·74	0·48	0·26	....	66018	"
....	32·55	67·45	3·03	0·89	0·53	0·36	... .	66019	"
....	31·95	68·05	2·56	0·76	0·50	0·26	.....	66020	"
....	32·14	67·86	2·92	0·90	.....	. ...	.....	66021	"
.....	31·54	68·46	2·04	0·79	.....	.....	....	66022	"
....	30·88	69·11	3·20	1·05	.....	.....	.....	66023	"
..... .	31·94	68·06	4·40	0·85	.....	.....	.....	66024	"
. .....	35·62	64·38	2·60	0·82	.....	.....	.....	66025	"
.. ..	32·14	67·86	2·20	0·79	.....	.....	.....	66026	"
. .. .	32·22	67·78	1·98	0·88	.....	.....	.....	66027	"
....	34·42	65·58	3·00	0·60	.....	.....	....	66028	"
....	32·62	67·38	2·60	0·92	.....	.....	.....	66029	"
. .....	32·62	67·38	2·80	0·93	.....	.. .	...	66030	"
F. X. W. E. BELAND, INSPECTOR.									
.. . .	33·59	66·41	3·54	1·05	.....	.....	.....	56330	Genuine
....	33·19	66·81	2·98	0·92	.....	.....	.....	56331	"
....	34·39	65·71	4·12	1·09	.....	.....	.....	56332	"
....	32·54	67·46	3·06	1·08	.....	.....	.....	56333	"
....	32·54	67·46	2·50	0·87	.....	.....	.....	56334	"
....	35·16	64·82	2·10	1·02	..	.....	.....	56335	"
....	33·59	66·41	2·88	0·92	...	.....	.....	56336	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF QUEBEC CITY—							
1915.							
April 22	Sirop d'érable.	56337	Cantin & Frere, 271 St. Joseph, Quebec.	1 chop	25	M. Blouin, Ile Orleans.	Manufacturer.....
" 22	"	56338	" " " ..	1 "	25	Leger Hardy.....	Leger Hardy, St. Basile.
" 23	"	56339	A. Pichet, 176 Dorchester, Quebec.	1 "	20	Unknown.....	Unknown.....
" 23	"	56340	J. D. Marier, 136 Dorchester, Quebec.	1 "	15	Mad. Poulin, St. Feréole.	Manufacturer.....
" 23	"	56341	F. Paquet & Cie, 134 Du Pont, Quebec.	1 "	15	Tremblay.....	" ...
" 23	"	56342	J. L. Letourneau, 133 Du Pont, Quebec.	1 "	18	Unknown.....	Unknown ... ...
" 26	"	56344	C. O. Simard, 8 St. Jean, Quebec.	1 "	20	Selvurt Nanis.	Albert Nanis, Ste. Cecile, Hamilton
" 26	"	56356	Jos. Savard, 35 "	1 "	35	D. Drolet, Ancienne Lorette.	Manufacturer ....
" 26	"	56359	L. Grenier, 94 "	1 "	17	Arthur Huot, Ange Gardien.	" ....
DISTRICT OF QUEBEC PROVINCE—							
April 20	Sirop d'érable.	3829	N. Fortier, Ste. Claire....	1 pte.	25	....	.....
" 21	"	3831	H. Bernier, Ste. Marguerite.	1 "	25	....	.....
" 21	"	3834	J. Gagnon, Ste. Henedine	1 "	25	....	....
May 3	"	3544	Alfred Pouliot, St. Philemon.	1 chop	15	Pierre Gagnon, St. Philemon.	....
" 3	"	3545	Octave Tanguay, "	1 "	15	Vendor	... .
" 5	"	3552	Louis Lavediere, St. Magloire.	1 "	12	Jos. Laverdiere, St. Magloire.	.....
" 6	"	3558	Alfred Audet, St. Damien	1 "	13	Wm. Guilmet, St. Damien.	.....
" 7	"	3559	Alfred Gagne, "	1 "	13	Guillaume Chabot, St. Damien.	.....
" 8	"	3567	Jean Lantagne, St. Raphael.	1 "	15	Aventure Roy, St. Raphael.	... .
" 10	"	3574	Francois Cote, Armagh.	1 "	14	Pierre Cote, Armagh	.. ..
" 10	"	3578	Pierre Isabel, "	1 "	15	Francois Isabel, Armagh.	....
" 10	"	3581	Donat & Brochu, "	1 "	15	Jos. Racheford Armagh.	....
April 21	"	3832	Clovis Carbonneau, St. Marguerite.	1 "	25	. ...	....
" 27	"	2763	A. Caron, St. Pierre Montmagny.	1 "	19	Vendor.....	....
" 29	"	2767	Dame O. Gagné.	1 "	15	Wilfred Vezina, Cap St. Ignace.	.....
" 24	"	267	Jos. Richer, Ste. Jerome..	1 "	13	....	.....

SESSIONAL PAPER No. 14

MAPLE SYRUP.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.							No. of Sample.	Remarks, and Opinion of the Chief Analyst.
	Water.	Solids.	Calculated to Water Free Basis. Lead Number Canadian.	Total Ash.	Water Soluble Ash.	Insoluble Ash.	Malic Acid Value.		
Concluded.									
	p. c.	p. c.		p. c.	p. c.	p. c.	p. c.		
....	34·71	65·29	3 58	1 08	.....	.....	.. ...	56337	Genuine.
....	33 79	66·21	3 10	1 25	.....	... . .	.....	56338	"
.....	33·49	66 51	3·69	1·07	.. ....	.....	.....	56339	"
.. ..	33·79	66·21	3·92	1·10	.... ..	.. ...	. .....	56340	"
.....	33 46	66·54	3 59	0·85	.....	. .....	.....	56341	"
.....	31·83	68 17	2·28	0 99	. .....	.....	.....	56342	"
... .	33·59	66·41	3 00	0 75	....	.. .	.....	56344	"
....	32 54	67·46	4·84	1 30	.....	... .	.....	56356	"
... .	32 14	67 86	4 80	1·28	.....	.....	.....	56359	"
J. E. AUDET, O. BROCHU, T. GENDREAU, N. CADIEUX, TEMPORARY INSPECTORS.									
... ...	32 20	67 80	2·10	0·89	. .	.. ..		3829	Genuine.
....	29 55	70 45	3 64	0 81	.....	.....	...	3831	"
....	29 90	70 10	3·24	1 04	. . ...	.. ...	.....	3834	"
.. . .	29 88	70 11	3 24	1 04	.....	.....	.....	3844	"
. ...	30 74	69 26	3 30	0 74	.. .	...	...	3544	"
.. . .	31 39	65 51	3 36	1 02	...	...	.....	3565	"
. .. .	32 54	67 46	3 40	1 32	...	...	. ..	3568	"
....	33 88	66 11	3 46	0 80	.....	...	.....	3569	"
... ...	31 94	65 06	4 01	0 98	...	...	...	3567	"
....	33 88	66 11	4 01	1 04	...	...	...	3571	"
....	31 39	68 61	5 20	0 93	...	...	...	3575	"
....	33 60	67 00	3 94	1 09	...	...	...	3581	"
... ...	30 85	69 15	2 78	1 14	...	...	...	3585	"
... .	34 49	65 57	3 81	1·16	...	...	...	3586	"
. ...	31 33	68 67	2 40	0 82	...	...	...	4197	"
. ...	33 51	66 49	3 48	1 32	...	...	...	365	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF QUEBEC PROVINCE—	
1915.							
April 24	Sirop d'erable.	268	Hormisdas Laborte, Ste. Jerome.	1 chopin.	15		
" 24	"	269	Evangeliste Lafrance, St. Canut Comte des deux Mont.	1 "	15		
" 27	"	271	Staniolas Desormeaux, Ste. Jerome.	1 "	15	Alp. Bastien.	
" 28	"	272	Dr. Em. Fournier, Ste. Jerome.	1 "	....	Em. Mahaise	
May 4	"	283	Roderie Fouchette, Ste. Agathe des Monts.	3 bot.	35	Raymond	
" 4	"	285	H. Monette, Ste. Aagthe des Monts.	1 chop	25	Esdias Raymond, St. Jerome.	
" 20	"	56448	Hellam & Bros , Rimouski	1 "	15	F. H	
" 22	"	56449	Pierre Denyon, Rimouski.	1 "	25		Quebec Preserving.
" 22	"	56459	Damien & Cie, Rimouski	1 "	40	L. J. A. Dupius, St. Roch des Aulnais.	
June 1	"	56465	Louis Levasseur, Fraserville.	1 "	25	Maple Producers Assn., Montreal.	
" 2	"	56472	Francois Pelletier, Fraserville.	1 "	20	J. A. Lord, St. Roch des Aulnais.	
" 2	"	56477	H. J. Lyrois, Cacouna	1 "	25	Ulric Talbot, L'Islet	
" 4	"	56479	L. J. A. Dupius, St. Roch	1 "	25	Vendor	
" 4	"	56480	Alp. Caron, St. Roch	1 "	25	Alfred Jalbert, St. Louis.	
" 5	"	56481	Pamphile Pelletier, Ste. Perpetue.	1 "	25	Vendor	
" 11	"	56482	Rene & E. Morneau, Ste. Perpetue.	1 "	25	Vendors	
May 17	"	2486	Jos. Guimond, Matane	1 "	27		N. Rioux, Quebec.
" 17	"	2487	Jas. Forbes, Matane	1 "	30	Montreal Biscuit Co., Montreal.	
" 19	"	2495	A. F. Bontin, Mont Joli.	1 "	20	L. J. A. Dupius, Jr., St. Roch D'Aulnais	
" 19	"	2497	Wm. Michaud, Mont Joli.	1 "	18	Leo. Bernard, St. Chas. Bellechasse.	
						DISTRICT OF THREE RIVERS—	
May 8	Maple Syrup.	67985	Paul Champagne, St. Jean Matha.	1 lb.	15	Vendor	
" 8	"	67986	Wilfred Roy, St. Jean Matha.	1 "	15	"	
" 10	"	67987	Louis Desroches, St. Jean Matha.	1 "	15	"	
" 11	"	67988	Narcisse Roberge, St. Felix de Valois	1 "	15	"	

SESSIONAL PAPER No. 14

MAPLE SYRUP

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Calculated to Water Free Basis. Lead Number (Canadian.)	Total Ash.	Water Soluble Ash.	Insoluble Ash.	Malic Acid Value.		
Concluded.									
	p.c.	p. c.		p. c.	p. c.	p. c.	p. c.		
.....	31·76	68·24	3·70	0·63	.....	.....	.....	268	Genuine.
Purchased at Ste. Jerome market.	31·16	68·84	3·56	1·06	.....	.....	.....	269	"
.....	31·41	68·59	1·94	0·83	.....	.....	.....	271	"
....	31·31	68·69	2·96	0·92	.....	.....	.....	272	"
....	36·16	63·82	2·06	1·02	.....	.....	.....	283	"
.....	33·79	66·21	2·44	0·86	.....	.....	.....	285	"
.. . .	34·07	65·93	2·58	0·90	.....	.....	.....	56448	"
.....	30·51	69·49	0·37	0·28	.....	.....	.....	56449	Adulterated. Manufacturer's claim, sold as Table syrup, not maple.
....	33·13	66·87	2·90	1·14	.....	.....	.....	56459	Genuine.
....	33·97	66·03	3·06	0·95	.....	.....	.....	56465	"
.....	33·13	66·87	4·06	1·06	.....	.....	.....	56472	"
....	33·13	66·87	3·22	1·20	.....	.....	.....	56477	"
.....	35·17	64·83	3·46	1·28	.....	.....	.....	56479	"
....	36·92	63·08	3·14	1·11	.....	.....	.....	56480	"
.....	35·17	64·83	3·46	0·90	.....	.....	.....	56481	"
.. ..	35·17	64·83	2·64	0·86	.....	.....	.....	56482	"
.....	31·63	68·27	3·00	1·02	.....	.....	.....	2486	"
.. ..	31·72	68·28	0·06	0·14	.....	.....	.....	2487	Adulterated. Manufacturers' claim, was sold as Syrup, not maple.
.....	32·67	67·33	4·00	1·30	.....	.....	.....	2495	Genuine.
....	33·82	66·18	3·50	1·09	.....	.....	.....	2497	"
DR. V. P. LAVALLEE, INSPECTOR.									
.....	30·63	69·37	3·08	0·92	.....	.....	.....	67985	Genuine.
.....	34·83	65·17	2·86	0·87	.....	.....	.....	67986	"
.... .	31·18	68·82	2·04	0·83	.....	.....	.....	67987	"
....	30·33	69·67	2·76	1·10	.....	.....	.....	67988	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF THREE RIVERS—							
1915.							
May 11	Maple Syrup.	67989	Louis Boucher, Castel Hill	1 lb.	15	Vendor	
" 12	"	67990	Alexis Lepicier, Ste. Cecile.	1 "	15	"	
" 12	"	67991	Michel Lepicier, Ste. Cecile.	1 "	15	"	
" 14	"	67992	Veuve V. Ducharme, St. Cleophas des Brandon.	2 "	20	"	
" 14	"	67993	Edouard Joly, St. Cleophas des Brandon.	1 "	15	"	
" 18	"	4000	Joseph Belleville, Domain	1 "	25	"	
DISTRICT OF EASTERN TOWNSHIPS—							
May 5	Maple Syrup.	58101	J. B. St. Pierre, St. Hyacinthe.	1 bot.	30		
" 5	"	58102	Walter Jutras & Cie, St. Hyacinthe.	1 "	25		
" 5	"	58103	L. Gendreau, St. Hyacinthe.	1 pint.	15		
" 5	"	58104	J. Leduc, St. Hyacinthe.	1 "	15	J. Ducharme, Willow, P. Q.	
" 10	"	58105	P. J. Girard, Richmond, P.Q.	1 "	13	E. Roger, Richmond.	
" 10	"	58106	A. M. Hutton, Richmond, P.Q.	1 "	15		
" 10	"	58107	Ginn & Elliott, Richmond, P.Q.	1 "	15	J. Duclos, Dom. Mills	
" 11	"	58108	E. E. Biron, Sherbrooke.	1 bot.	20		
" 11	"	58109	Herbert Fortin, Sherbrooke.	1 pint.	15	J. Lapointe, Compton, P. Q.	
" 11	"	58110	Alp. Lanctot & Fils, Sherbrooke.	1 "	16		
" 11	"	58111	Thériault & Leclerc, Sherbrooke.	1 "	17		
" 11	"	58112	H. Lacroix, Sherbrooke.	1 "	16	R. Johnson, Eastman, P.Q.	
" 11	"	58113	Geo. F. Moore, Sherbrooke.	1 "	20		
" 12	"	58111	Woodman & Mckee, Coaticooke.	1 bot.	35	Walter Parker, Coaticooke.	
" 12	"	58115	A. Vaillancourt, Coaticooke.	1 pint.	16	J. Poulin, Compton, P.Q.	
DISTRICT OF MONTREAL—							
May 7	Maple Syrup.	67151	D. Milard, 191 First Ave., Maisonneuve.	1½ pt.	27		P. Doré

SESSIONAL PAPER No. 14

MAPLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Calculated to Water Free Basis.						
			Lead Number (Canadian.)	Total Ash.	Water Soluble Ash.	Insoluble Ash	Malic Acid Value.		
Concluded.									
	p. c.	p. c.		p. c.	p. c.	p. c.	p. c.		
	36·33	63·67	3·62	1·05				67989	Genuine.
	32 30	67·70	2 34	0·89				67990	"
	30 33	69·67	2 40	0 81				67991	"
	35·12	64·88	2·54	1 08				67992	"
	37 62	62·38	5·16	1 44				67993	"
	31·98	68·02	2 92	0 90				40**	"
J. J. COSTIGAN, ACTING INSPECTOR									
	32·69	67 40	2 86	0 88				58101	Genuine.
	82 39	67 61	2 56	0 83				58102	"
	35 39	64·61	3·40	1 05				58103	"
	32·60	67·40	2 86	0 97				58104	"
	32 39	67·61	4 30	1 06				58105	"
	33 80	66 20	2 92	1 01				58106	"
	31 64	68 36	2 98	1 02				58107	"
	3 39	64 61	3 30	0 79				58108	"
	36 45	63 55	4 42	1 35				58109	"
	31 76	68 24	3 14	1 02				58110	"
	32·45	67 55	2 40	1 18				58111	"
	35 19	64 81	3 92	0 85				58112	"
	31 55	68 45	5 36	1 10				58113	"
	33 60	66 40	1·92	0 95				58114	"
	32 65	67 35	2 48	0 83				58115	"
D. J. KEARNEY, INSPECTOR.									
	31 98	68 02	2 00	0 74				67913	Genuine.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF MONTREAL—
1915.							
May 7	Maple Syrup.	67152	H. A. E. Morin, 121 St. Catherine St., Maisonneuve.	1 qt.	25	.....	A. Raymond & Co.
" 7	" ..	67153	L. P. Gates, 71 Notre Dame St., Maisonneuve.	1½ pt.	30	....	Unknown. .....
" 14	" ..	67155	L. Archambault, 2850 Masson St. Parc, Mont La Salle, Montreal.	1½ " .	24	....	A. Raymond & Co.
" 14	" ..	67156	A. Desjardins, 2353 Bourbonnais St., Maisonneuve.	1½ " .	15	.....	M. Bonhomme...
" 14	" ..	67157	Mont LaSalle Cash Grocery, 2753 Boule Rosemount, Montreal.	1½ " .	18	.....	Unknown .....
" 15	" ..	67158	C. H. Fournier, 1127 Mt. Royal Ave. E., Montreal.	1½ " .	20	. . ..	V. Brosseau .....
" 15	" .	67159	R. Corbeil, 1081 Mt. Royal Ave. E., Montreal.	1½ " .	27	....	Em. Bastien ..
" 15	" .	67160	Trudeau & Frere, 1036 Mt. Royal Ave. E., Montreal.	1½ " .	27	.....	H. Pepin & Co....
" 15	" .	67161	S. Jacques, 874 Mt. Royal Ave. E., Montreal.	1½ " .	27	....	M. Lavellee .....
" 17	" .	67162	Choquette & Frere, 32 Craig St. E., Montreal..	1¼ " .	20	....	N. Sirois.....
" 17	" .	67163	P. H. Theoret, 21 Vitre St. E., Montreal.	1 qt.	35	....	Unknown .....
" 17	" .	67164	D. Kouri, 72 Lagauchetiere St. E., Montreal.	1½ pt.	30	. .. .	" .....
" 17	" .	67165	S. Dionne, 140 Dorchester St. E., Montreal.	1½ " .	30	....	" .....
" 18	" .	67126	Paquette & Co., 185 St. Paul St., Montreal.	1½ " .	30	.. ..	" .....
							DISTRICT OF VALLEYFIELD—
April 21	Maple Syrup.	57901	Joseph Miron, Hawkesbury.	1 pt.	15	Arthur Aubrey, Mont Oscar.	.. ..
" 21	" .	57902	Laurin & Frere, Hawkesbury.	1 " .	15	Eugene Cusson, Hawkesbury.	....
" 22	" .	57903	Graham & Hunter, St. Lambert.	1 bot.	35	A. W. Westover, Sutton Jct.	....
" 22	" .	57904	J. A. Tremblay & Cie, Lambert.	1 tin.	1·00	A. T. Stone, Glen Sutton.	.....
" 23	" .	57905	W. R. Simpson, St. Johns.	1 bot.	25	A. V. Desrochers, North Stanbridge.	....
" 27	" .	57906	C. Hambault, Valleyfield.	1 " .	25	Vendor.....	... .
" 27	" .	57907	E. Bougie, Valleyfield....	1 pt.	15	J. Thibault, St. Antoine.	

SESSIONAL PAPER No. 14

MAPLE SYRUP.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Calculated to water free basis. Lead Number Canadian.	Total Ash.	Water Soluble Ash.	Insoluble Ash.	Malic Acid Value.		
Concluded.									
	p. c.	p. c.		p. c.	p. c.	p. c.	p. c.		
Purchased as compound.	35·00	65·00	0·10	0·10	... .	.....	.....	67152	Illegal.
....	30·00	70·00	3·36	0·78	.....	.....	.....	67153	Genuine.
Pure Maple and Cane Syrup.	33·26	66 74	0 13	0·06	.....	.....	.....	67155	Illegal.
.....	35·06	65·94	0·08	0 20	... ...	.....	.....	67156	Vendor claims to have sold as syrup only.
Purchased as compound.	33·83	66·17	0·18	0·32	. .....	.....	.....	67157	Illegal.
" "	34 13	65·87	0·04	0·14	.....	.....	.....	67158	"
....	34·68	65·32	3·04	0·97	.....	.....	....	67159	Genuine.
....	32·97	67·03	2·40	0 87	.....	.....	.....	67160	"
.....	31·99	68·01	2·96	0·94	.....	.....	.....	67161	"
. .. .	34·82	65·18	0 09	0 18	..... .	.....	.....	67162	Vendor claims to have sold as compound, and hence is illegal
.. ..	32·38	67 62	3 50	0 91	....	.....	.....	67163	Genuine.
... .	36 82	63 18	2 96	0 90	.....	.....	.....	67164	"
....	32 38	67·62	3·36	0 87	... ...	.....	.....	67165	"
....	31·22	68·78	2 64	0·74	.....	.....	.....	67126	"

J. J. COSTIGAN, ACTING INSPECTOR.

.....	33·11	66·89	2 28	0 90	....	.....	57801	Genuine.
. ...	36·18	63·82	5·38	1 03	.. ..	.....	57802	"
....	32·61	67 39	3 06	0 90	....	.....	57803	"
. .. .	33 71	66 29	4 60	0 89	....	.....	57804	"
....	32·19	67·81	1 01	0 50	... .	.....	57805	Adulterated. Manufacturer claims that he sold only pure syrup.
... ...	38·89	61·11	2 44	0 90	. .....	.....	57806	Genuine, but contains excess water; pass.
	35·80	64	3 32	1 10	.....	.....	57807	Genuine.

BULLETIN No. 325—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF VALLEYFIELD—							
1915.							
April 27	Maple Syrup.	57908	A. R. Biron, Valleyfield.	1 pt.	15		
" 27	"	57909	W. J. McPherson, Valleyfield.	1 "	15	W. Watson	
" 27	"	57910	J. Z. Daoust, Valleyfield.	1 "	15		
May 2	"	57911	A. Anderson, Herdman.	1 tin.	1·00	Nelson Forquhar, Herdman, P.Q.	
" 2	"	57912	Pringle, Stack & Co., Huntingdon.	1 "	1·25	Jos. Arthur, Rockburn, P.Q.	
" 3	"	57913	Chas. Lord, Longueuil.	1 pt.	18		
" 3	"	57914	V. Dore, Longueuil	1 "	20	J. Letebvre, St. Placide, P.Q.	
" 3	"	57915	L. H. Lamarre, Longueuill.	1 bot.	25	G. Gagnon, Lawrenceville.	
DISTRICT OF OTTAWA—							
April 20	Maple Syrup.	63602	A. B. Scott Co., Smith's Falls.	1 pt.	15	M. Whitmore, Toledo, Ont.	
" 20	"	63606	Mrs. J. Sutherland, Perth	1 "	20	Mr. Best, Elmsley, Ont.	
" 21	"	63612	A. V. McLean, Perth	1 qt.	35	Sugars & Canners, Ltd., Montreal.	
" 27	"	63624	Dempsey & Co., Renfrew.	1¼ pt.	20	Muskoka Maple Syrup Co., Hamilton.	
" 27	"	63629	A. E. Leach, Renfrew	1 bot.	30	Can. Maple Exchange Ltd., Montreal.	H. N. Bate & Sons, Ottawa.
" 27	"	63631	Stewarts, Ltd., Renfrew.	1 pt.	20	T. Kenny & Sons, Hallerton, P.Q.	
" 29	"	63633	Calderone & Bossio, Ottawa.	3 bots.	50	A. W. Westover, Sutton Junction.	
" 30	"	63634	J. Bambrick, Ottawa	3 "	75	Garrett Safford, Sutton, P. Q.	
" 30	"	63641	Wall & Co., Ottawa	1 "	35	Can. Maple Exchange Ltd., Montreal.	
May 4	"	63651	A. Stein, Albert St., Ottawa.	1 "	35	Maples Ltd., Toronto.	

SESSIONAL PAPER No. 14

MAPLE SYRUP.

Concluded.

Inspector's Report. (Is not an Expression of opinion).	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst
	Water.	Solids.	Calculated to Water Free Basis.						
			Lead Number (Canadian).	Total Ash.	Water-Soluble Ash.	Insoluble Ash	Malic Acid Value.		
	p. c.	p. c.		p. c.	p. c.	p. c	p. c.		
....	29·65	70·35	3·20	1·20	. . ..	. .	. . .	57908	Genuine.
....	40·60	60·60	3·44	1·03	.. . ..	... ..	.....	57909	Genuine, but excess water; pass.
. ...	35·35	64·65	3·10	0·93	.....	.... ..	.....	57910	Genuine.
....	36·00	64·00	2·94	0·89	.....	.....	.....	57911	"
....	35·80	64·20	3·00	1·17	... ..	.. ....	.....	57912	"
....	35·15	64·85	0·88	0·54	.....	. .....	.....	57913	Adulterated.
... .	34·70	65·30	2·88	0·84	. .	.	. .	57914	Genuine.
.. . .	31·30	68·70	2·76	0·90	.... .	. . . .	. .....	57917	"

J. A. RICKEY, INSPECTOR.

....	34·31	65·69	4·62	1·11	....	....	... .	63602	Genuine.
....	33·86	66·14	2·80	0·80	.....	.. ..	...	63606	"
Silver Sheaf Brand Pure Maple Syrup. Guaranteed absolutely pure.	40·00	60·00	1·84	0·96	...	. .		63612	Genuine, but excess water; pass.
Sold as Maple Syrup, but invoiced to vendors as Muskoka Syrup.	33·41	66·59	0·52	0·35	..	. .	. .	63621	Adulterated. Manufacturer claims not to sell as maple syrup.
Monument Brand Pure Maple Syrup.	32·91	67·09	1·39	0·63	0·12	0·11	0·80	63625	Adulterated.
(. ..)	35·98	64·02	3·80	1·06	.....	.....	.....	63631	Genuine.
. . .	35·53	64·47	2·70	0·92	.....	.....	.....	63632	"
Guaranteed pure.	33·18	66·82	1·82	0·78	.....	.....	.....	63634	"
Canada's Best Pure Maple Syrup.	32·83	67·17	1·92	0·92	.....	.....	.....	63641	"
Old Fyne Pure Sap Maple Syrup guaranteed absolutely pure.	33·41	66·59	0·80	0·42	.....	.....	.....	63651	Adulterated.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF KINGSTON—							
1915.							
April 24	Maple Syrup.	68001	W. Horning, Eginburg...	1 qt.	25	.....	....
" 28	" ..	68002	Jno. M. Gordon, Kingston.	1 "	40	Can. Maple Exchange Ltd., Montreal.	....
" 28	" ..	68003	J. A. Lemmon, Kingston.	1 "	35	....	W. J. Crothers, Kingston.
" 28	" ..	68004	Harry Thompson, Kingston.	1 "	30	.....	Robertson & Nicolle, Kingston.
" 29	" ..	68005	J. Gilbert, Kingston.....	1 "	35	E. Day, Sydenham..	.....
" 29	" ..	68006	J. E. Purday, Kingston..	1 "	35	Unknown	.....
" 29	" ..	68007	Chas. Saunders, Kingston	1 "	35	Mr. Miller, Ernstown	.....
May 4	" ..	68008	Wallbridge & Clarke, Belleville.	1 "	45	C. A. Westover, Frelyhsburg, P. Q.	....
" 4	" ..	68009	Wm. H. Fox & Co., Cobourg.	1 "	40	Maple Tree Producers Ltd., Montreal.	....
" 4	" ..	68010	E. Guillet, Cobourg	1 "	40	... .	Macdonald Co., Lanark.
DISTRICT OF TORONTO—							
May 11	Maple Syrup.	67019	H. Wright, Markham....	1 bot.	25	Maple Tree Producers Assn.	H. P. EchardtCo., Toronto.
" 12	"	67020	J. O. Bartlet, Uxbridge..	1 qt..	45	East Townships M. S. & S. Exchange Sutton, P.Q.	....
" 13	"	67021	The Estate of F. McRae, Beaverton.	1 pt..	25	.....	G. B. Hall, Barnston, P.Q.
" 14	"	67022	T. B. Cramp, Orillia.....	1 "	25	Unknwn.....	....
" 15	"	67023	G. Hager, Midland.....	1 "	20	....	The McCormick Mfg. Co. London
" 20	"	67034	J. Pettigrew, 1372 Queen st. W., Toronto.	1 "	25	R. S. Trotter, Chanty	.....
" 20	"	67035	E. S. Bullock, 147 Ronces-ville ave.. Toronto.	1 qt..	35	Ramsays Ltd, Montreal.	.....
" 20	"	67036	J. J. Cayle, 1867 Yonge street, Toronto.	1 pt..	23	Maples Ltd., Toronto.	....
" 20	"	67037	S. G. Whaley, 2509 Yonge street, Toronto.	1 "	25	.....	Unknown.....
" 22	"	67038	The Loblaw Stores, 208 Christie street, Toronto.	1 Jar.	16	.....	G. B. Hall, Barnston, P. Q. . . .

SESSIONAL PAPER No. 14

MAPLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks, and Opinion of the Chief Analyst.
			Calculated to Water Free Basis.						
	Water.	Solids.	Lead Number Canadian.	Total Ash.	Water Soluble Ash.	Insoluble Ash.	Malic Acid Value.		
JAMES HOGAN, INSPECTOR.									
	p.c.	p.c.		p.c.	p.c.	p.c.	p.c.		
Taken from tin on Kingston market.	30·96	69·04	2·16	1·04	.....	.....	.....	68001	Genuine.
. ...	32·81	67·79	1·36	0·70	.....	.....	.....	68002	Adulterated.
....	39·66	60·34	3·44	1·09	.....	.....	.....	68003	Genuine, but excess water; pass.
....	36·26	63·74	3·38	1·25	....	.. ..	.....	68004	Genuine.
....	40·60	60·00	3·04	1·13	. .....	.....	... .	68005	Genuine, but excess water; pass.
....	34·71	65·29	3·76	1·19	.....	.. ..	.....	68006	Genuine.
....	35·16	64·84	3·32	0·82	. ....	.....	.....	68007	"
.....	33·82	66·17	2·92	0·98	.. ....	.. ....	.....	68008	"
.....	31·38	68·62	2·56	0·82	.....	.....	.... ..	68009	"
... .	35·63	64·37	3·30	0·85	.....	....	..... .	68010	"
H. J. DAGER, INSPECTOR									
Pride of Canada Pure Maple Syrup.	33·89	66·11	3·28	1·02	. . .	. . ...	... . .	67019	Genuine.
Guaranteed pure on original package.	33·99	66·01	2·32	0·88	.....	.....	.....	67020	"
....	34·07	65·93	4·44	1·31	.. ..	.. .	.	67021	"
....	36·78	63·22	4·94	1·28	.....	.....	.....	67022	"
Open Kettle Brand Guaranteed Absolutely pure	35·06	64·94	1·05	0·64	0·41	0·23	0·16	67023	Adulterated.
....	30·96	69·04	1·43	0·72	0·46	0·26	0·26	67034	"
Snowshoe Brand	36·78	63·22	1·96	0·78	.....	.....	.....	67035	Genuine.
Old Tyme.	36·93	63·07	1·15	0·60	0·30	0·16	0·16	67036	Adulterated.
.. . . . .	32·73	67·27	2·54	0·74	.....	.....	.....	67037	Genuine.
. . ..	34·74	65·26	2·92	0·86	.....	.....	.....	67038	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
DISTRICT OF HAMILTON—							
1915.							
April 26	Maple Syrup.	66958	Bell Bros., Elora.....	1 pt..	25	.....	Unknown .....
" 27	"	66959	Ford Melvin, Palmerston.	1 "	25	Wm. Darvock, Palmerston.	....
" 27	"	66960	T. H. Ellis & Co., Mount Forest.	1¼ "	35	James Robb, Mount Forest.	. . ..
" 28	"	66961	E. Walker, Harriston ..	1 "	25	East Townships, Maple Exchange, Sutton, P.Q.	.....
" 29	"	66962	Hunstein & Willick, Mildmay.	1 "	38	Unknown.	....
" 29	"	66963	F. Carter & Son, Paisley..	1 "	22	.. ..	McCormick Mfg., Co. London.
" 30	"	66964	Ross & Wormington, Chesley.	1 "	25	The Maple Tree Producers Assn. Ltd., Montreal.	.....
" 30	"	66965	A. W. McFaul, Owen Sound.	1 "	33	J. H. Gowan, Frankland Centre. P Q.	....
May 1	"	66966	R. D. Little, Owen Sound	1 qt..	35	Maples Ltd. Toronto	....
" 4	"	66967	E. O. Taylor, Oakville. ..	1 pt..	30	.....	Kelly & Bullock, Gananoque,
DISTRICT OF WINDSOR—							
April 20	Maple Syrup.	54761	O. C. Whittey, Goderich.	3 jars.	35	J. McClarty	....
" 20	"	54762	Dean Bros., Goderich ...	3 "	25	Bissett Bros., Salford.	... .
" 20	"	54763	John Spahr, Goderich....	3 "	40	Unknown	....
" 20	"	54764	John Cutt, Goderich.....	3 "	25	R. Linklater...	....
" 20	"	54765	O. Neill & Co., Goderich	3 "	45	J. R. Vargoe, Carlow, Ont.	....
" 21	"	54768	H. Bartleff, Clinton.....	3 "	45	Unknown	.....
" 21	"	54770	W. T. O'Neill, Clinton..	3 "	20	W. W. Cooper, Kippen.	.....
" 21	"	54771	Johnson & Co., Clinton ..	3 "	....	V. M. Deihl, Stanley Tp.	....
" 21	"	54773	E. E. Hunniford, Clinton.	3 "	20	Jas. Mann.....	....
" 21	"	54775	Thos. Daly, Seaforth....	3 "	20	Peter McKay, Tuckersmith.	....

SESSIONAL PAPER No. 14

MAPLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Water.	Solids.	Calculated to Water Free Basis.						
			Lead Number (Canadian.)	Total Ash.	Water Soluble Ash.	Insoluble Ash.	Malic Acid Value.		
H. J. DAGER, ACTING INSPECTOR.									
	p. c.	p. c.		p. c.	p. c.	p. c.	p. c.		
. ...	30·89	69·11	0·08	0·28	.. ...	.....	.. ..	66958	Adulterated.
.....	46·33	53·47	3·80	1·22	.....	.....	.....	66959	Genuine as to sugar, but great excess water, and on this account is adulterated.
... .	39·33	60·67	5·10	1·41	.....	.....	.....	66960	Genuine, but excess water: pass
Sample from can labelled pure.	32·99	67·01	1·60	0·74	0·40	0·34	0·19	66961	Doubtful.
... .	40·80	59·20	6·06	1·28	... ..	.....	.... ..	66962	Genuine; but excess water: pass
... .	33·89	66·11	0·36	0·27	.....	.....	.....	66963	Adulterated.
Pride of Canada pure Maple Syrup.	33·98	66·02	3·20	0·92	... ..	. ....'	.....	66964	Genuine
.. ..	34·88	65·12	2·26	0·92	.....	.....	.....	66965	"
Old Tyme Pure Sap Maple Syrup.	32·19	67·81	0·34	0·40	... ...	....	...	66966	Adulterated.
.. ..	37·76	62·24	2·58	1·16	.....	.. ...	.....	66967	Genuine.
JOHN TALBOT, INSPECTOR.									
. . ..	30·96	69·04	3·40	1·15	.....	.....	.....	54761	Genuine.
....	34·36	65·64	2·84	0·88	.	.	.	54762	"
... .	32·46	67·54	2·94	0·84	.....	.....	.....	54763	"
.....	34·51	65·49	3·14	1·08				54764	"
Labelled Pure Maple Syrup.	34·71	65·29	3·40	1·00	.....	.....	.....	54765	"
.	37·76	62·34	4·02	1·06				54766	"
....	32·81	67·79	2·74	0·80	.....	.....	.....	54770	"
.	38·00	62·00	4·84	1·09	.			54771	"
....	31·41	68·59	2·32	0·90			.	54772	"
. .. ..	32·61	67·39	2·70	0·83	.....	.....		54773	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF MANITOBA—							
1915.							
April 26	Maple Syrup.	61252	A. S. Coyle, Sargent Ave., Winnipeg.	1 can.	90	Maple Tree Producers' Assn.	.....
" 26	"	61253	B. Aranson, Sargent Ave., Winnipeg.	1 qt..	50	" " ..	....
" 26	"	61254	J. Yost, Sargent Ave., Winnipeg.	1 bot.	50	Can. Maple Exchange Ltd., Montreal.	Telfer Bros., Winnipeg.
" 27	"	61255	S. Myers, Ellice St., Winnipeg.	1 can.	50	Ramsays Ltd., Montreal.	....
" 27	"	61256	E. Feir, Ellice St., Winnipeg.	1 bot.	50	Maple Tree Producers' Assn., Ltd.	.....
" 28	"	61257	The T. Eaton Co., Ltd., Winnipeg.	1 can.	85	James Davidson, Waterloo, P.Q.	....
" 28	"	61258	Hudson's Bay Co., Winnipeg.	1 "	45	Ramsays, Ltd., Montreal	.....
" 29	"	61259	W. J. Sutherland, Grosvenor and Stafford Sts., Winnipeg.	1 bot.	50	....	....
" 29	"	61260	Hardy & Buchanan, Winnipeg.	1 qt..	50	James A. Grubb, West Shefford, P.Q.	....
May 25	"	61261	Gallagher Bros., Elmwood P.O.	3 bots.	75	....	Jobin, Marin & Co., Winnipeg.
DISTRICT OF SASKATCHEWAN—							
April 27	Maple Syrup.	66355	Bertins Ltd., Swift Current.	1 pt.	30	Maples Ltd., Toronto	Swift Current Grocery.
" 27	" ..	66356	W. W. Cooper Co., Swift Current.	1 "	50	Maple Tree Producers Assn., Montreal.	" "
" 28	" ..	66362	Thomas Brothers, Gull Lake.	1 "	20	Unknown	Campbell, Wilson & Strathdee, Regina.
May 3	" ..	66377	Kent & Brown Co.. Moose Jaw.	1 "	30	Ramsay's Ltd., Montreal.	....
" 4	" ..	66381	W. G. Dey, Pense	1 qt.	50	McCormick Mfg. Co., London.	Mfrs.... .....
" 6	" ..	66388	S. B. Yerxa, Regina.....	1 pt.	25	Unknown	....
" 10	" ..	66392	Curry Grocery, Moose Jaw.	1 qt.	50	Edmund J. Berry, Brome, P.Q.	Mfr.....
" 10	" ..	66393	Innis Co., Moose Jaw	1 pt.	25	Garrett Stafford Co., Sutton, P.Q.	" ....

SESSIONAL PAPER No. 14

MAPLE SYRUP.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.							No. of Sample.	Remarks, and Opinion of the Chief Analyst.
	Water.	Solids.	Calculated to Water Free Basis.						
			Lead Number (Canadian).	Total Ash.	Water Soluble Ash.	Insoluble Ash.	Malic Acid Value.		
A. C. LARIVIÈRE, INSPECTOR.									
	p. c.	p. c.		p. c.	p. c.	p. c.	p. c.		
.....	34·11	65·89	3·00	0·93	.... ..	.....	.....	61252	Genuine.
....	33·41	66·59	2·30	0·83	.. .. ..	.. ..	..... .	61253	"
....	34 76	65·24	2·06	0·74	.....	... ...	....	61254	"
... ...	39·00	61·00	1·41	0 76	0 54	0 22	0·35	61255	Adulterated as to sugar and excess water.
..... .	33 56	66·44	3·08	0·89	.... .	.. ....	.. ..	61256	Genuine.
... .	31 41	68 59	1·92	0 82	. ... ..	.....	.. .. ..	61257	"
....	36·03	63·97	1 52	0 70	0 42	0 28	0·34	61258	Adulterated.
Pride of Canada ..	32·23	67·77	2·94	0·80	... ..	.... ..	.....	61259	Genuine.
.. ..	33·06	66 94	0 92	0 71	0 52	0 14	0 25	61260	Adulterated. Manufacturer claim to have sold pure syrup
Old Tyme	34·80	65·20	1 75	.. ..	.... ..	... .	... ..	61261	Meets legal requirement.
L. H. HALL, INSPECTOR.									
Old Tyme	32 61	67·39	0 16	0 27	. ..	.. ..	.. ..	66355	Adulterated.
.. .. ..	34·03	65 97	3 08	1 06	.....	.. ..	.. ..	66356	Genuine.
. .. .	32·46	67 54	0 49	0 44	.. ..	.....	.. ..	66362	Adulterated.
Snowshoe Brand	33·13	66·87	0·58	0 54	..	..	..	66377	"
Open Kettle Brand	36 06	63 94	0 24	0 26	.....	.....	.....	66381	"
.. ..	42 03	57 97	1 84	0 83	.. ..	..	.. ..	66385	Genuine as to sugar, but adulterated by excess water.
.. ..	33·64	66 36	2 76	0 96	..	..	..	66382	Genuine.
.. ..	33 13	66 87	2 72	1 03	.. ..	..	..	66383	"

BULLETIN No. 325—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
DISTRICT OF ALBERTA—							
1915.							
April 30	Maple Syrup.	52120	Hallier & Aldridge, Edmonton.	1 tin	60	Maple Tree Producers Assn., Montreal.	....
" 30	" ..	52121	Johnston Walker Ltd., Edmonton.	3 bots.	90	Maples Ltd., Toronto	....
" 30	" ..	52122	Hudson's Bay Co., Edmonton.	1 tin	50	Maple Tree Producers Assn., Montreal.	.....
May 1	" ..	52123	I. H. Morris & Co., Edmonton.	1 bot.	55	Can. Maple Exchange	.....
" 18	" ..	52124	Hudson's Bay Co., Calgary	1 pt.	30	E. J. Berry, Brome, P.Q.	.....
" 18	" ..	52125	S. G. Freeze, Calgary ...	1 bot.	35	Maple Tree Producers Assn., Montreal.	.....
" 20	" ..	52126	John Irwin Co., Calgary..	1 can	35	Sugar & Canners, Ltd., Montreal.	.....
" 21	" ..	52127	Pryce Jones (Canada) Ltd. Calgary.	1 bot.	35	Maples Ltd., Toronto	....
June 17	" ..	52128	Geo. Kerr, Lethbridge....	1 "	65	Maple Tree Producers Assn., Montreal.	.....
DISTRICT OF ROCKY MOUNTAINS—							
April 26	Maple Syrup.	61805	Trail Grocery, Trail.....	3 bots.	1.95	Can. Maple Exchange	....
May 20	"	61811	Ira R. Manning, Cranbrook.	1 "	60	Sugars & Canners, Ltd., Montreal.	....
" 20	"	61817	J. Manning, Cranbrook..	1 tin.	60	W. C. Strong, North Sutton, P.Q.	.....
" 20	"	61818	Cranbrook Trading Co., Cranbrook.	3 jars.	1.00	McCormick Mfg. Co., London.	.....
June 10	"	61830	A. Hobson, Revelstoke...	1 bot.	60	Maple's, Ltd., Toronto.	....
" 10	"	61831	G. W. Bell, Revelstoke ..	1 tin.	1.25	Sugar & Canners, Ltd., Montreal.	... ...
" 10	"	61832	" " ..	1 "	1.25	....	A. P. Slade & Co., Vancouver,
" 10	"	61837	L. C. Masson, Revelstoke	3 "	1.95	Kelly Confection. Co., Vancouver.	.....
DISTRICT OF VANCOUVER—							
May 3	Maple Syrup.	55234	T. W. Turner, 890 Pender st., Vancouver.	1 tin.	50	Maple Tree Producers Assn., Montreal.	... .
" 3	"	55235	Almas Grocery, 444 Robson st., Vancouver.	1 bot.	40	Sugars & Canners, Ltd., Montreal	....
" 3	"	55236	J. A. Lowe, 1002 Seymour st., Vancouver.	1 "	25	Maple's, Ltd., Toronto.	.....

SESSIONAL PAPER No. 14

MAPLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
			Calculated to water free basis.						
	Water.	Solids.	Lead Number Canadian.	Total Ash.	Water Soluble Ash.	Insoluble Ash.	Malic Acid Value.		
A. W. R. MARKLEY, INSPECTOR.									
	p. c.	p. c.		p. c.	p. c.	p. c.	p. c.		
Pride of Canada...	32·62	67·28	2·94	0·83	.....	.....	.....	52120	Genuine.
Old Tyme	35·17	64·83	1·04	0·47	.....	.....	.....	52121	Adulterated.
Pride of Canada..	34·32	65·68	2·58	0·88	.....	.....	.....	52122	Genuine.
.....	34·98	66·02	0·38	0·45	.....	.....	.....	52123	Adulterated.
.....	32·77	67·23	2·42	0·84	.....	.....	.....	52124	Genuine.
Pride of Canada.	28·82	71·18	3·14	0·90	.....	.....	.....	52125	"
Silver Sheaf	36·16	63·84	0·53	0·43	.....	.....	.....	52126	Adulterated.
.....	33·51	66·49	1·14	0·54	.....	.....	.....	52127	"
Pride of Canada...	32·22	67·78	3·30	1·07	.....	.....	.....	52128	Genuine.
THOS. PARKER, INSPECTOR.									
Small's	35·05	65·00	3·04	0·90	.....	.....	.....	61846	Genuine.
Silver Sheaf ..	36·96	63·04	1·64	0·81	0·66	0·15	0·17	61811	Meets legal requirements.
.....	32·54	67·46	2·14	0·80	.....	.....	.....	61817	Genuine.
Open Kettle	32·08	67·92	0·25	0·10	.....	.....	.....	61818	Adulterated.
Old Tyme	32·88	67·12	0·40	0·22	.....	.....	.....	61840	"
Silver Sheaf	33·07	66·93	0·42	0·40	.....	.....	.....	61851	"
.....	32·62	67·38	3·06	0·90	.....	.....	.....	61855	Genuine.
.....	33·52	66·48	2·06	0·79	.....	.....	.....	61885	"
E. J. MORGAN, INSPECTOR									
Pride of Canada, Pure Maple Syrup	34·33	65·67	2·84	1·11	.....	.....	.....	62041	Genuine.
Silver Sheaf Brand, Pure Maple Syrup	36·00	64·00	2·00	0·98	.....	.....	.....	62026	"
Old Tyme, Pure Sap Maple Syrup	32·38	67·62	0·81	0·59	0·55	0·54	0·18	62045	Adulterated.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher, as given by the Vendor. Manufacturer.	Furnisher.
DISTRICT OF VANCOUVER—							
1915.							
May 4	Maple Syrup.	55237	A. & C. Grocery Co., 520 Granville st., Vancouver	1 tin.	50	Kelly Confection. Co., Ltd., Vancouver.	.....
" 4	"	55238	W. H. Walsh, Seymour and Davie sts., Vanc.	1 bot.	50	Can. Maple Exchange Ltd.	....
" 4	"	55239	Flion, Ltd., 204 Carrall st., Vancouver.	3 jars.	40	St. Jacques, St. Hermas, P.Q.	.....
" 7	"	55240	G. Boyd, 6th and Granville sts., Vancouver.	1 bot.	30	East. Tps. M. S. & S. Exchange, Sutton, P.Q.	....
" 10	"	55241	S. Pritchard, 950 Robson st., Vancouver.	3 jars.	30	Maple's, Ltd., Toronto.	.....
" 10	"	55242	Annandale Supply Co., Columbia st., New Westminster.	1 tin.	50	Kelly Confection. Co., Ltd., Vancouver.	.....
" 11	"	55243	Mount Pleasant Grocery, 2425 Main st., Vanc.	1 bot.	25	Maple's, Ltd., Toronto.	.....
DISTRICT OF VICTORIA—							
May 27	Maple Syrup.	66711	Windsor Grocery, Ltd., 817 Govt. st., Victoria.	1 qt. .	50	Maple's, Ltd., Toronto.	....
" 28	"	66714	D. H. Ross & Co., 1317 Govt. st., Victoria.	1 " ..	60	W. R. Horner, Granby, P.Q.	....
" 31	"	66718	West End Grocery Co., Ltd., 1002 Govt. st., Victoria.	1 " ..	50	Maple's, Ltd., Toronto.	....
June 8	"	66723	Acton Bros., 1317 Douglas st., Victoria.	1 " ..	50	Maple Tree Producers Assn., Montreal.	.....
" 8	"	66724	Erskine & Co., 861 Johnson st., Victoria.	1 " .	55	Maple's, Ltd., Toronto.	.....
" 9	"	66728	H. O. Kirkham & Co., 741 Fort st., Victoria.	1 tin.	50	Kelly Confection. Co., Ltd., Vancouver.	.....
" 9	"	66729	Henry W. Driver, 856 Yates st., Victoria.	1 qt. .	60	Maple Tree Producers Assn., Montreal.	.....
" 10	"	66732	Linden Grocery, Linden and May st., Victoria.	1 " ..	50	Sugars & Canners, Ltd., Montreal.	.....
" 10	"	66735	The Cook st. Grocery, 1023 Cook st., Victoria.	1 " ..	50	Can. Maple Exchange Montreal.	....
" 21	"	66757	H. O. Kirkham, 1109 Govt. st., Victoria.	1 " ..	55	Kelly Confection. Co., Ltd., Vancouver.	.....

SESSIONAL PAPER No. 14

MAPLE SYRUP.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
			Calculated to water free basis.						
	Water.	Solids.	Lead Number (Canadian).	Total Ash.	Water Soluble Ash.	Insoluble Ash.	Malic Acid Value.		
Concluded.									
	p.c.	p.c.		p. c.	p. c.	p. c.	p. c.		
Canadian Brand, Pure Maple Syrup	33·13	66·87	2·64	1·04	.....	.....	.....	55237	Genuine.
Small's Map. Syrup Guaranteed pure.	34·78	65·22	2·00	0·75	.....	.....	.....	55238	"
.....	35·90	64·10	2·54	0·99	.....	.....	.....	55239	"
Labelled guaranteed pure.	33·43	66·57	2·20	1·10	.....	.....	.....	55240	"
.....	34·53	65·47	1·09	0·45	.....	.....	.....	55241	Adulterated.
Kelly's Pure Maple Syrup.	34·23	65·77	2·00	0·97	.....	.....	.....	55242	Genuine.
Old Tyme, Pure Sap Maple Syrup	35·43	64·57	2·80	0·70	.....	.....	.....	55243	"
D. O'SULLIVAN, INSPECTOR.									
Old Tyme	36·41	63·59	0·84	0·47	.....	.....	.....	66711	Adulterated.
.....	33·86	66·14	2·94	1·04	.....	.....	.....	66714	Genuine.
.....	38·31	61·69	0·90	0·64	.....	.....	.....	66718	Adulterated.
Pride of Canada ...	33·86	66·14	3·34	0·74	.....	.....	.....	66723	Genuine.
.....	38·46	61·54	1·01	0·70	.....	.....	.....	66724	Adulterated.
Canadian.	33·41	66·59	2·46	0·74	.....	.....	.....	66728	Genuine.
Pride of Canada ...	32·41	67·59	3·08	0·85	.....	.....	.....	66729	
Silver Sheaf ...	36·41	63·59	1·69	0·89	.....	.....	.....	66732	Meets legal requirements.
Small's Selected. ...	32·61	67·39	2·04	0·75	.....	.....	.....	66735	Genuine.
Canadian Brand ...	34·41	65·59	2·52	1·03	.....	.....	.....	66737	"

APPENDIX Q.

BULLETIN No. 326—MALT EXTRACTS.

OTTAWA, 21st February, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to hand you a report upon one hundred and fifty-two (152) samples purchased as Malt Extracts by our various Inspectors.

Malt Extract is not defined by the British Pharmacopœia. The British Pharmaceutical Codex of 1911 does, however, define Malt Extract (Extractum Malti) as follows:—

"A brown-yellow or light amber-coloured, thick, viscid liquid, having a faint, pleasant characteristic odour, a sweet, mucilaginous taste, and a distinct acid reaction. Its diastatic activity is destroyed at temperatures above 65°C Specific Gravity about 1·375. Soluble in all proportions in water, the solution being precipitated by strong alcohol. Malt Extract consists chiefly of maltose (50 per cent or more) and dextrin, with some dextrose, and should also contain a fair proportion of diatase."

This account of the article may be regarded as descriptive rather than definitive.

Malt Extract is described to much the same effect, in the United States Pharmacopœia (Eighth revision, 1900). No constants as to density, diastatic value, sugar content, etc., are stated.

Liquid Extract of Malt; is not a pharmacopœal preparation. It is described in the B. P. Codex as prepared from Extract of Malt, alcohol and distilled water. 100 parts of the liquid extract contain about 7·5 parts of alcohol. The specific gravity should be about 1·2.

With regard to the action and uses of Malt Extract I quote the following from the B.P. Codex of 1911, p. 402.

"The medicinal value of malt extract depends upon the proportion of total solid nutritive carbohydrates it contains, and upon its diastatic action, the latter enabling it to convert the starchy constituents of food into soluble carbohydrates, chiefly maltose. But the diastase becomes inactive in an acid medium such as obtains in the stomach during digestion. The extract is given to children and adults for its nutritive properties. Many of the extracts on the market contain no diastase, the ferment having been destroyed during evaporation."

Among other reasons for the present (the first) systematic inspection of Malt Extracts, was the question whether a number of preparations more or less closely resembling Malt Extract were to be regarded, for purposes of revenue, as Drugs or as Foods. Malt Extract is very frequently employed as a vehicle for the administration of drugs, such as Cod Liver Oil, Phosphates, Quinine, etc., and, of course, in such combinations it must be classified as a drug. When used *per se*, its main, if not its only claim to medicinal properties, is based upon its containing active diastase. In its sugar content it must be regarded as a food.

Of one hundred and fifty-two (152) samples now reported, only sixteen (16) can be regarded as fulfilling in any satisfactory degree, the requirements of an Extract of Malt. These contain solids varying from about 70 to 80 per cent, and the solids in question are mainly malt sugar, dextrin and dextrose. The characteristic results of these sixteen (16) samples are summarized in the following table:—

TABLE A.

Malt Extracts.

No.	Solids.	Specific Gravity.	Diastatic Value.	Alcohol (Weight).
54053	71·30	1·330	0·7	6·10
52140	80·36	1·418	112·6	Nil.
54054	78·20	1·408	56·0	"
66051	77·80	1·395	56·0	"
56366	78·20	1·400	56·0	"
67327	81·00	1·423	90·0	"
63610	78·84	1·408	53·0	"
66745	81·60	1·427	111·0	"
52143	82·16	1·431	99·9	"
63611	73·70	1·317	15·0	3·88
52145	71·84	1·322	39·1	3·11
66741	70·80	1·321	54·8	3·25
61802	81·60	1·424	54·6	Nil.
55277	81·72	1·425	54·7	"
61838	81·96	1·429	13·4	"
66754	83·16	1·447	13·6	"

It should here be stated that five samples of medicated Malt Extracts, purchased in error by Mr. Inspector Beland are not inserted in the above table. These bear numbers 56368 to 56372 inclusive.

Liquid Extract of Malt, is prepared as follows; under directions given in the B. P. Codex of 1911—(page 1180):—

Extract of Malt, by volume	67·50	parts.
Alcohol	7·50	
Distilled water to make	100	"

The specific gravity should be about 1·2. Two alternative methods are given for preparation of Liquid Malt Extract. One from an aqueous infusion of malt, when the specific gravity of the resulting extract should be about 1·275; the other by percolation of the malt, in coarse powder, with alcohol diluted with three times its volume of water, until the percolate weighs three-fourths the weight of the malt used.

In order to obtain certain constants for Liquid Malt Extract, as described in the B. P. Codex, two samples were prepared in the laboratories, from samples of Malt Extract numbered 63610 and 67327.

No. 63610 is a Kepler Extract, made by the Burroughs, Wellcome Co.; has specific gravity 1·408; contains 78·84 per cent solids; has a diastatic value of 53 degrees Lintner, and is free from alcohol.

No. 67327 is also a Kepler Extract, manufactured by Burroughs, Wellcome Co. It has specific gravity 1·423, contains 81·00 p.c. total solids; has diastatic value of Lintner and is free from alcohol.

The Liquid Extracts were prepared strictly according to the directions of the B.P. Codex as above and gave following results:—

	Liquid Extract of Malt from 63610	Liquid Extract of Malt from 67327
Specific gravity	1·2892	1·2845
Alcohol (volume p.c.)	8·75	8·75
Specific gravity of extract (dealcoholized)	1·2982	1·2937
Extractive (calculated)	57·2	56·7

An examination of the analytical results found for 128 samples purchased as Malt Extract or as Liquid Malt Extract and comprising all the samples of this collection, except 16 which are reported in Table A, shows that only three samples can be regarded as Liquid Malt Extracts, in the sense of the B. P. Codex. The three samples in question bear the numbers 66050, 63655 and 52144, and give the following results:—

TABLE B.

Liquid Malt Extract.

No.	Solids.	Specific Gravity.	Diastatic Value.	Alcohol (Weight).
66050	55·50	1·250	25·6	8·22
63655	58·51	1·245	20·0	9·43
52144	58·44	1·243	9·2	8·60
Samples Prepared in Laboratory from—				
63610	53·20	1·260	....	5·37
67327	54·70	1·263	....	5·57

The present report deals with 152 samples, which may be classified as follows:—

Genuine Extract of Malt	16	samples.
Genuine Liquid Extract of Malt	3	"
Medicated Extract of Malt	5	"
Beverages sold as Malt Extract	128	"
Total	152	samples.

Of the 128 samples which cannot be classed either as Malt Extract, or as Liquid Extract, the following may be said:—

1. They usually contain alcohol; the amount of which, stated as proof spirit, varies from about 4 per cent to about 12 per cent.

2. Extractive matter varies from about 5 to about 12 per cent—only 14 samples showing as much as 13 per cent.

3. Ordinary Ale (or beer) is required to contain at least 3·5 per cent solids, and an examination of published results (See I. R. Bulletins No. 52, 196 and 283) shows that the solids in Canadian made Ales, of good quality usually range from 4 to 6 per cent while alcohol (expressed as proof spirit) varies from about 7 to about 10 per cent.

4. None of these samples possess any diastatic value; consequently, in this respect, they do not differ from ordinary Beer or Ale.

In order to facilitate comparison between the so-called Malt Extracts of the class now under consideration, and ordinary Ales or Beers, the following table has been prepared.

TABLE C.

Brand.	Number Samples Examined.	Alcohol as Proof Spirit.	Solids.
1. Malt Nutritive	5	2·94	15·67 tonic.
2. Dr. Kilborn's	1	7·36	6·19 beer.
3. R. A. Brewery	1	5·61	10·67 tonic.
4. Cremo Malt	2	10·88	2·64 beer.
5. Carling's	20	7·09	6·14 beer.
6. Maltovin	7	5·33	12·44 tonic.
7. Diamond	1	7·49	6·93 beer.
8. Goebel	2	2·68	12·74 tonic.
9. Hoffman	1	9·18	5·35 beer.
10. Prima Tonic	1	10·26	8·48 beer.
11. Blue Ribbon	2	9·78	6·51 beer
12. Malta Labattine	1	10·81	5·48 beer.
13. Diastatic	9	7·36	10·28 tonic.
14. M. Bole	1	7·87	9·00 beer.
15. Miller's	3	10·51	9·68 tonic.
16. Dow's	3	8·00	11·57 tonic.
17. Oregon	1	8·00	11·48 tonic.
18. O'Keefes'	5	11·40	9·27 beer.
19. Pabst	16	7·66	11·19 tonic.
20. Salvador	7	7·65	5·30 beer.
21. Dr. Charles	1	5·98	10·72 tonic.
22. Hofman	1	8·00	5·04 beer.
23. Schlitz	2	7·93	9·11 beer.
24. Silver Springs	3	8·42	4·76 beer.
25. Sleeman's Springs	3	7·95	12·31 tonic.
26. Walkerville	2	11·62	6·39 beer
27. Wyeths	36	4·81	12·83 tonic.

These samples apparently represent 27 different brands; and I have already pointed out that none of them meet requirements for Liquid Malt Extract, under which name most of them are sold.

In several cases it would appear that the manufacturer has sought to produce a beverage somewhat more nutritious than ordinary beer; while in most cases the article does not essentially differ from a strong ale.

If we draw the line between an ordinary commercial ale, and a special ale, claiming tonic or nutritive qualities above ordinary ale, where may the line be drawn? This is, of course, a question which can only be acceptably answered after consultation with all parties interested in the matter.

I have ventured, to suggest that unless at least 10 per cent of nutritive solids remain in the product, it has no claim to be recognized as a special or tonic beverage. Many ordinary ales contain from 5 to 6 per cent of nutritive solids; and it would seem reasonable to require at least double of this amount to constitute a malt beverage, claiming any medicinal or tonic value.

On the above assumption, I find that 15 out of 27 brands named in Table C—should be sold as ale or beer; and should be placed on the market under the same conditions as ale or beer.

This conclusion has at present, no legal recognition, but I would respectfully ask for it the careful consideration of this department.

I would further suggest publication of this report as Bulletin No. 326.

I have the honour to be, sir,
Your Obedient Servant,

A. McGILL,
Chief Analyst.

BULLETIN No. 326—TABLE I, PART I.—MALT EXTRACTS.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		
DISTRICT OF NOVA SCOTIA—R. J. WAUGH, INSPECTOR.									
1915.									
June 18	Malt Extract..	54051	National Drug and Chem. Co., Halifax.	3 bots.	55	Carling B. and M. Co., London, Ont.	Mfrs	.. ..	
" 23	" ..	54052	John Tobin & Co., Halifax..	3 "	80	Pabst Brew. Co., Milwaukee.	"	....	
" 30	" ..	54053	B. F. Trask, Yarmouth.....	1 bot.	1 00	Parke, Davis Co., Walkerville.	"	.....	Malt Extract. Low diastatic values and somewhat low solids.
July 9	" .	54054	Taylor Drug Co., Bridgewater.	1 "	1 25	Burroughs, Wellcome Co., London, Eng.	.....	.....	Malt Extract. Genuine.
DISTRICT OF PRINCE EDWARD ISLAND—WM. WEEKS, INSPECTOR.									
May 7	Malt Extract..	60190	E. A. Foster, Charlottetown.	3 bots.	43	Reinhardt, Salvador Brewery Co., Toronto.	.. ..	....	
" 7	" ..	60191	" " ..	3 "	96	Pabst Brewery Co., Milwaukee.	....	....	
" 7	" ..	60192	C. D. Rankin, Charlottetown.	3 "	78	Carling B. and M. Co., London, Ont.	.....	....	
" 10	" ..	60193	George E. Hughes, Charlottetown.	3 "	1 11	John Wyeth & Bros., Philadelphia.	.. ..	.....	

DISTRICT OF NEW BRUNSWICK—J. C. FERGUSON, INSPECTOR.

May	16	Malt Extract.	66946	National Drug and Chem. Co., St. John.	3 lots.		90	Pabst, Milwaukee.			
"	13	"	66947	Comeau & Sheehan, St. John.	3 "	1	05	Anheuser, Busch Brew. Assn., St. Louis.			
"	17	"	66948	National Drug and Chem. Co., St. John.	3 "		90	Carling Brew. Co., London, Ont.			
"	17	"	66949	" "	3 "	1	05	Wyeth's	Lyman's, Ltd., Montreal.		
"	20	"	66950	R. T. Mack, Fredericton	3 "	2	25	Allen & Hanbury, Ltd., London, Eng.		Bynin	Malt Extract liquid. Genuine.
"	20	"	66951	C. A. McKeen, Woodstock	3 "	2	34	Burroughs, Wellcome Co., London, Eng.			Malt Extract. Genuine.
June	17	"	66952	C. O. Steeves, Moncton	3 "		75	Lyman's, Ltd., Montreal.			
"	18	"	66953	National Drug and Chem. Co., St. John.	3 "		75	Silver Spring Brewery, Sherbrooke.			

DISTRICT OF QUEBEC CITY—F. X. W. E. BELAND, INSPECTOR.

April	20	Extract Malt.	56917	Elz. Turcotte, 74 Desfosés, Quebec.	3 lots.		75	Pabst Brew. Co.			
"	20	"	56918	" "	3 "		54	Silver Spring Brewery			
"	21	"	56919	Myrant Pouliot, Quebec	3 "		60	Miller & Co	Laporte, Martin		
"	21	"	56920	A. Grenier, 94 St. Jean, Quebec	3 "		75	C. J. Oregan, Quebec	Mfr		
"	27	"	56921	Jos. Masson, 808 St. Valier, Quebec	3 "		75	John Wyeth & Sons, Philadelphia.	L. E. Martel		
"	27	"	56922	" "	3 "		75	Carling	National Drug		
"	26	"	56923	J. B. Gervais, 387 St. Joseph, Quebec	3 "	3	00	Burroughs, Wellcome	Mfr		Malt Extract. Genuine.
"	26	"	56924	" "	3 "	3	90	" "	"		" Medicated.
"	26	"	56925	" "	3 "	3	00				" "
"	26	"	56926	J. B. Gervais, 387 St. Joseph, Quebec	3 "	2	70	Burroughs Wellcome Co.	Mfr.		Malt Extract. Medicated.
"	26	"	56927	" "	3 "	2	70	" "			" "
"	26	"	56928	" "	3 "		90	" "	"		" "

BULLETIN No 326—TABLE 1, PART 1.—MALT EXTRACTS.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Furnisher.	Inspector's Report. (Is not an expression of opinion.)	Remarks and Opinion of the Chief Analyst.
DISTRICT OF QUEBEC PROVINCE—N. CADIEUX, A. PELLETIER, TEMPORAY INSPECTORS.									
1915.									
April 28	Extrait de Malt	273	J. N. Desjardins, St. Jérôme	3 bots.	1·11	John Wyeth & Bros., Montreal.	.....		
May 4	" ..	281	F. D. Hall, Ste. Agathe des Monts.	3 "	96	Carling.....	....		
" 4	" ..	287	Dr. Ed. Grignon, Ste Agathe des Monts.	3 "	78	Lyman's, Ltd..	....		
" 22	Malt Extract..	56457	Fraserville Drug Co., Fraserville.	3 "	75	.....	Lyman's, Ltd., Montreal.		
" 22	" ..	56463	Ed. Cloutier, Fraserville....	3 "	90	The Carling Co., London, Ont.	....		
June 1	" ..	56467	John Kaine, Fraserville.	3 "	1·05	John Wyeth, Philadelphia.	....		
DISTRICT OF THREE RIVERS—DR. V. P. LAVALLEE, INSPECTOR.									
May 1	Malt Extract..	67952	Camille Barrett, Joliette....	3 bots.	75	Wyeth Bros., Philadelphia.	Lyman's, Montreal....		
" 4	" .	67959	J. T. Gaudet, Joliette.	3 "	75	Davis & Lawrence.....	....		
" 5	" ..	67960	A. L. Boucher, Joliette.....	3 "	90	Pabst Brew. Co., Milwaukee.	Lyman Knox, Montreal.		
" 6	" ..	67961	C. L. Rivest, Joliette.....	3 "	75	Lyman's Ltd., Montreal..	... .		
" 5	" ..	67962	J. O. Daviault, Berthierville.	3 "	90	Wyeth Bros., Philadelphia.	Lyman's, Montreal.. .		

"	29	"	67296	L. P. Crepeau, Joliette	3	"	75	"	"	"		
"	15	"	67297	William Perreault, Joliette	3	"	75	"	"	"		
"	27	"	69105	R. W. Williams, Three Rivers	3	"	90	Lyman's, Ltd., Montreal				
"	31	"	69108	D. Carignan Fils, Three Rivers	3	"	75	Wyeth Bros., Philadelphia	Lyman's, Montreal			
June	1	"	69113	J. A. Bouvert, Joliette	3	"	90	"	"	"		

DISTRICT OF MONTREAL—D. J. KEARNEY, INSPECTOR

April	28	Malt Extract	67316	Dr. Miller, 1800 Massen St., Rosemont	3 bots.		78	National Breweries, Ltd.			Dow's	
"	28	"	67317	J. E. Morin, 927 Mt Royal Ave., E., Montreal	3	"	70		Nat. Drug Co.		Carling's	
"	26	"	67318	N. Cleroux, 738 Mt. Royal Ave., E., Montreal	3	"	75	John Wyeth & Bros.			Wyeth's	
"	26	"	67319	A. Lalonde, 586 Mt. Royal Ave., E., Montreal	3	"	78	Pabst Brewing Co.			Pabst	
"	27	"	67320	Outremont Pharmacy, 1195 Bernard St., Outremont	3	"	75	Lyman's, Ltd.			Lyman's	
"	27	"	67321	Martineau's Drug Store, 1068 St. Denis St., Montreal	3	"	75	Co. Medicale St. Charles			St. Charles'	
"	27	"	67322	"	3	"	75	"	"		Hofman's	
"	27	"	67323	J. H. Robert, 1185 St. Denis St., Montreal	3	"	78	Fred Miller Brew. Co.			Miller's	
"	28	"	67324	P. R. Thomas, 384 Bleury St., Montreal	3	"	78	Reinhardt Salvador Brewing Co.			Hofbrau	
"	28	"	67325	Fraser Viger & Co., Montreal	3	"	90	Anheuser Bush			Malt Nutrine	
"	28	"	67326	P. R. Thomas, 384 Bleury St., Montreal	3	"	1 11	O'Keefe's Brew. Co.			O'Keefe's	
"	28	"	67327	Burroughs Wellcome Co., 384 Bleury St., Montreal	3	"	1 30	Vendors			Kepler	Malt Extract. Genuine.

DISTRICT OF EASTERN TOWNSHIPS—J. J. COSTIGAN, ACTING INSPECTOR.

May	11	Malt Extract	58146	D. W. Stevens, Sherbrooke	3 bots.		1 05	Davis Lawrence Co., Montreal			Maltovin	
"	11	"	58147	"	3	"	45	Silver Springs Brewery, Sherbrooke			Silver Spring	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		
DISTRICT OF EASTERN TOWNSHIP—*Concluded.*									
1915									
May 11	Malt Extract..	58148	A. E. DuBerger, Sherbrooke.	3 bots.	1·05	John Wyeth Bros.....	....	Wyeth's.....	
" 11	" ..	58149	" "	3 "	75	Pabst Brew. Co., Milwaukee.	....	Pabst...	
" 12	" ..	58150	B. N. Robinson, Coaticook..	3 "	78	Carling B. & M. Co., Montreal.	....	Carling's.....	
" 12	" ..	58151	E. C. Drolet, Coaticook.....	3 "	75	Lyman's, Ltd., Montreal.	.. ..	Diastasic.....	
" 25	" ..	58152	G. Richard, Sherbrooke.....	3 "	75	....	.. ..	Dow's	
" 31	" ..	58153	Pharmacie Viger, St. Hyacinthe.	3 "	75	.....	Lyman's Ltd,.....	.....	
DISTRICT OF VALLEYFIELD—J. J. COSTIGAN, ACTING INSPECTOR.									
June 15	Malt Extract..	40972	Tourrangeau & Champagne, Buckingham.	3 bots.	90	....	.....	Pabst	
" 15	"	40973	J. Duval...	"	90	....	.....	Wyeth's...	
" 23	"	57944	P. P. Sabourin, St. Johns....	"	78	....	.....	Maltovin.....	
" 23	"	57945	Wight & Co	"	75	....	.....	Dow's.....	
" 24	"	57947	Dr. Gauthier, Valleyfield....	"	75	Independent Brew. Assn. Chicago.	.....	Prima Tonic....	

DISTRICT OF OTTAWA—J. A. RICKEY, INSPECTOR.

April	21	Malt Extract.	63609	W. S. Robertson, Perth	3 bots.	96	John Wyeth Bros., Montreal.			
"	21	"	63610	" "	"	2 04	Burroughs Wellcome, Montreal.		Kepler	Malt Extract Genuine.
"	21	"	63611	Fred. A. Girdwood "	"	3 12	Maltine Mfg. Co., Toronto.		Maltine	Malt Extract Diastatic value low, otherwise genuine.
May	3	"	63644	Nat. Drug and Chem. Co., Ottawa.	"	34	Reinhardt Salvador Brew. Ltd., Toronto.	W. H. Lee, Toronto	Hofbrau	
"	3	"	63645	" "	"	53	Carling B. & M. Co., London.			
"	3	"	63646	" "	"	72	Pabst Brew. Co., Milwaukee.			
"	3	"	63647	P. D'Aoust & Cie, Hull	"	57	Fred. Miller Brew. Co., Milwaukee.			
"	4	"	63654	E. J. Durocher, Ottawa	"	1 00	Anheuser Busch Brew. Assn., St. Louis.		Malt Nutrine	
"	4	"	63655	D. J. Stalker, Ottawa	"	1 89	Allen & Hanbury, Toronto.		Bynin Liquid Malt.	Malt Extract, liquid, genuine.

DISTRICT OF KINGSTON—JAMES HOGAN, INSPECTOR.

April	28	Malt Extract.	68046	C. P. Phouse, Kingston	3 bots.	75	Carling, London			
"	28	"	68047	T. H. Sargent, Kingston	"	75	Pabst Brew. Co., Milwaukee.			
"	28	"	68048	A. P. Chown, Kingston	"	1 05	John Wyeth Bros., Montreal.			
"	28	"	68049	Geo. A. Mahood, Kingston	"	45	Reinhardt Salvador Brew. Ltd., Toronto.			
May	4	"	68059	D. G. Bleecher, Belleville	"	1 05	Davis & Lawrence Co., Montreal.			
"	5	"	68061	McDermid & Jury, Peterboro.	"	75	O'Keefe, Toronto			

DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.

May	12	Malt Extract	67088	T. C. Nicholls, Uxbridge	3 bots.	48	Reinhardt Salvador Brew. Ltd., Toronto.		Hofbrau	
"	12	"	67090	W. S. Short, Port Perry	"	90	Pabst Brew. Co., Milwaukee.		Pabst	
	14	"	67092	F. M. Haffey, Orillia	"	78	Sleeman & Son, Guelph			

BULLETIN No. 326—TABLE I, PART I.—MALT EXTRACTS.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report's. (Is not an expression of opinion.)	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		
DISTRICT OF TORONTO—*Concluded.*									
1915.									
May 15	Malt Extract.	67063	G. A. Ramsden, Midland....	3 bots.	78	Carling B. & M. Co., London.	....	.....	
" 19	"	67064	Geo. Marshall, 137 Wilton Ave., Toronto.	"	47	Walkerville Brew. Co., Ltd., Walkerville.	....	.....	
" 19	"	67065	The J. A. Lunnon Drug Store, Jarvis & Queen, Toronto.	"	43	Berlin Lion Brewery, Berlin.	....	Dr. Kibbons....	
" 19	"	67066	F. S. Taylor, 292 Spadina Ave, Toronto..	"	78	O'Keefe Brew. Co., Toronto.	....	O'Keefe's.....	
" 20	"	67067	R. H. Thompson, 1470 Yonge St., Toronto.	"	78	Goebel Brew. Co., Detroit.	....	.....	
" 21	"	67068	A. J. McCall & Co., Queen and Church sts., Toronto.	"	78	Lyman's Ltd., Montreal.		Diactic.....	
" 21	"	67077	The Robt. Simpson Co., Ltd. Yonge and Queen St., Toronto.	"	78		Lyman Bros. & Co., Ltd., Toronto.	Wyeth's	
DISTRICT OF HAMILTON—H. J. DAGER, ACTING INSPECTOR.									
April 26	Malt Extract.	66994	R. Phillips & Son, Fergus...	3 bots.	75	Carling B. & M. Co., London.	....	.....	
" 29	"	66995	P. B. Moore, Paisley.....	3 "	78	....	Unknown	Pabst	
" 30	"	66996	D. A. Cameron & Co., Owen Sound.	3 "	78	.....	Nat. Drug & Chem. Co., Toronto.	Goebel.....	

May	1	Malt Extract	6899	H. E. Middleboro, Owen Sound.	3	bots.	78	Sleeman & Sons, Guelph.		
"	4	"	6900	T. A. La Patournal, Burlington.	3	"	45	Reinhardt Salvador Brew Co., Toronto.		Hofbrau
"	5	"	6899	J. W. Gerrie, 32½ Janes st. N., Hamilton.	3	"	78		Nat. Drug & Chem. Co., Hamilton.	O'Keefe's
"	5	"	6700	Parke & Parke, Market Square, Hamilton.	3	"	78	Grant Spring Brew. Co., Hamilton.		Diamond Mfg. for vendor.
"	6	"	6701	Nat. Drug & Chem. Co., Hamilton.	3	"	45	J. Labatt & Co., London.		Blue Ribbon
"	6	"	6701	Parke & Parke, Market Square, Hamilton.	3	"	96	John Wyeth & Bros., Philadelphia.		Wyeth's

DISTRICT OF WINDSOR—JOHN TALBOT, INSPECTOR.

April	21	Malt Extract	54772	W. R. Holmes, Clinton	3	bots.	90	O'Keefe's, Toronto		O'Keefe's
"	23	"	54782	Alex. Wilson, Seaforth	3	"	1 05	John Wyeth & Bros., Montreal.		
"	23	"	54784	Chas. Aberhart, Seaforth	3	"	75	Carling B. & M. Co., London.		
"	29	"	54790	C. Cunningham, St. Mary's	3	"	45	John Labatt, London		Malto Labattine.
"	25	"	54756	Standard Drug Co., London.	3	"	45	Reinhardt Salvador Brew Co., Toronto.		Hofbrau
"	25	"	54790	T. N. Skinner, London	3	"	45	Walkerville Brew. Co., Walkerville.		
"	25	"	54756	W. T. Strong, London	3	"	75	Pabst brew. Co., Milwaukee.		Pabst
May	4	"	54813	D. Donaldson, Sarnia	3	"	10	Brit. Amer. Brew. Co., Windsor.		
"	9	"	54819	J. M. Robe, Petrolea	3	"	78	Sleeman & Sons, Guelph.		

DISTRICT OF MANITOBA—A. C. LARIVIERE, INSPECTOR.

April	20	Malt Extract	61291	Whaley Drug Store, Sargent ave., Winnipeg	3	bots.	78	Nat. Drug & Chem. Co., Hamilton.		
"	25	"	61295	J. R. Robinson, Ellice st., Winnipeg.	3	"	1 11	John Wyeth Bros., Montreal.		
May	11	"	61299	P. F. Fraund, Portage ave., Winnipeg	3	"	78	Carling, London		
"	20	"	61286	Smith's Drug Store, Souris	3	"	1 5	6 Martin Bole, Wynne Co., Winnipeg.		
"	26	"	61296	Macpherson & Burnett, Souris	3	"	1 0	6 Davis & Lawrence, Montreal.		

BULLETIN No. 326—TABLE I, PART I.—MALT EXTRACT.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector,s Report. (Is not an expression of opinion.)	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		
DISTRICT OF SASKATCHEWAN—L. H. HALL, INSPECTOR.									
1915.									
April 27	Malt Extract.	66358	Rooney's Pharmacy, Swift Current.	3 bots.	1.20	John Wyeth & Bro., Philadelphia.	Nat. D. & C. Co.....	... .	
" 28	"	66361	C. H. Morrison, Gull Lake..	3 "	1.10	Carling B. & M. Co., London.	....	....	
May 1	"	66374	L. C. Gilmour, Moose Jaw..	3 "	1.06	Lyman's Ltd., Montreal.	....	....	
DISTRICT OF ALBERTA—A. W. R. MARKLEY, INSPECTOR.									
April 30	Malt Extract.	52140	G. H. Graydon, Edmonton..	3 bots.	3.00	Parke, Davis Co., Walkerville.	....	.. . .	Malt Extract genuine.
" 30	"	52141	" " ..	3 "	1.20	Pabst, Milwaukee..... .	....	.....	
" 30	"	52142	" " ..	3 "	1.20	John Wyeth & Bro.,Montreal.	....	Wyeth's.....	
" 30	"	52143	Findley Drug Co., Calgary..	3 "	2.25	Burrough Wellcome Montreal.	....	Kepler.....	Malt Extract genuine.
May 18	"	52144	McDermid Drug Co., Calgary	3 "	1.50	Allen & Hanbury, London, Eng.	....	Bynin.	Malt Extract Liquid genuine.
" 18	"	52145	" " ..	3 "	3 45	Maltine Mfg. Co., Toronto.	....	Maltine.... ..	Malt Extract genuine.
" 21	"	52153	Nat. Drug & Chem. Co., Calgary.	3 "	55	Carling B. & M. Co., London.	....	.....	
June 15	"	52183	P. W. McNabb, Brooks. ...	3 "	1.05	" "	....	Carling's. ...	

DISTRICT OF ROCKY MOUNTAINS—THOS. PARKER, INSPECTOR.

April 28	Malt Extract.	61801	E. W. Hazewood, Trail.....	3 bots.	1 05	Carling B. & M. Co., London, Ont.	.....	.....		
" 29	"	61802	" " "	3 "	1 50	National Drug & Chemical Co., Vancouver	.....	.....		Malt Extract, genuine.
May 20	"	61819	Cranbrook Drug Co., Cranbrook.	3 "	1 00	Davis & Lawrence, Montreal.	.....	.....		
" 20	"	61823	Beattie Murphy Co., Cranbrook.	3 "	1 50	John Wyeth & Bros., Montreal.	.....	.....		
June 10	"	61858	W. Bews, Revelstoke..	3 "	3 10	Lorimer & Co., London, England.	.....	.....		Malt Extract. Diastatic value. Low, otherwise genuine.
" 10	"	61859	" "	3 "	1 10	.....	J. A. Tepoorten & Co., Vancouver.	Cremo Malt.....		

DISTRICT OF VANCOUVER—E. J. MORGAN, INSPECTOR.

May 26	Malt Extract.	58276	H. Ryal, Columbia St., New Westminster.	3 bots.	1 00	Carling, London.....	.....	.....		
" 25	"	58277	D. S. Curtis, & Co., Columbia St., New Westminster.	3 jars.	1 00	National Drug & Chemical Co., Vancouver.	.....	.....		Mals Extract, genuine.
" 25	"	58278	M. Lennan's Drug Store, Columbia St., New Westminster.	3 bots.	1 00	Unknown	.....	Sold as Cremo Malt.		
" 25	"	58279	Owl Drug Co., Dunsmuir and Granville St., Vancouver.	3 "	1 06	John Wyeth & Bros., Montreal.	.....	.....		
" 25	"	58280	Georgia Pharmacy, Georgeand Granville Sts., Vancouver.	3 "	1 06	Pabst Brewing Co., Milwaukee.	.....	.....		
" 25	"	58281	Hudson's Bay Co. Granville St. Vancouver.	3 "	75	Jno. Schlitz Brewing Co. Milwaukee.	.....	Schlitz's Malt Tonic.		
" 26	"	58282	W. M. Harrison & Co., Ltd., 19 Hastings St. W., Vancouver.	3 "	1 00	Davis & Lawrence Co., Montreal	.....	Maltovim.. ..		
" 26	"	58283	[illegible]	3 "	1 00	Carl Hoffman, Hamburg, Germany	.....	.....		
" 26	"	58284	Woodworth Dept Stores, Hastings St., Vancouver.	3 "	1 06	Anheuser Busch Brewing Assn., St. Louis.	.....	Malt Mixture...		

DISTRICT OF VICTORIA—D. O'SULLIVAN, INSPECTOR

25	Malt Extract	58742	Windsor Grocery Co., 817 Gore St., Victoria.	"	1 06	Pabst Brewing Co., Milwaukee	.....	Pabst.....		

BULLETIN No. 326—TABLE I, PART I.—MALT EXTRACTS.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		
DISTRICT OF VICTORIA—*Concluded.*									
1915.									
June 11	Malt Extract.	66741	F. J. Williams, 613 Fort St., Victoria.	1 bot.,	1 25	R. L. Gibson, Toronto..	....	Maltine	Malt Extract, genuine,
" 14	" ..	66745	Terry's Drug Store, 705 Fort St., Victoria.	1 "	75	Burroughs Wellcome London, Eng.	.....	Kepler.....	Malt Extract, genuine.
" 14	" ..	66747	Hall & Co., 702 Yates St., Vancouver.	3 pts..	1 00	Carling B. & M. Co. London.	....	. .. .	
" 15	" ..	66751	W. Jackson & Co., 1411 Douglas St., Vancouver.	2 bots.	80	John Wyeth & Bros., Montreal.	... .	....	
" 15	" ..	66753	John Cochrane, 1300 Douglas St.. Vancouver.	3 pts..	1 20	Anheuser Busch, St. Louis.	.. . .	....	
" 15	" ..	66754	National Drug & Chemical Co., Victoria.	1 "	75	Holden & Co., Montreal.	....	Barlex	Malt Extract. Diastatic value. Low, otherwise genuine.
" 21	" ..	66758	H. O. Kirkham & Co., 741 Fort St., Victoria.	3 "	75	Jno. Schlitz Brewing Co. Milwaukee.	.....		

BULLETIN No. 326—TABLE I, PART II—MALT EXTRACTS.

Name of Inspectoral District	No. of Sample	Results of Analysis. Sp. gr. at 15·5° C.	Alcohol. By Weight.	Alcohol. By Volume.	Proof Spirit	Extract by weight.	Sp. gr. of Original Wort.	Extract in Original Wort.	Degree of Fermentation.	Reducing Sugar as Maltose.	Ash.	Phosphate, P_2O_5	Preservatives.	Diastatic Value.—Degrees Lintner.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
			p. c.	p. c.	p. c.	p. c.		p. c.		p. c.	p. c.	p. c.				
Nova Scotia	54051	1·0230	3·40	4·26	7·47	7·33	1·0523	13·19	44·5	3·24	0·308	0·080	.....	None...	54051	
	54052	1·0258	3·66	4·58	8·03	11·23	1·0701	17·57	36·1	2·63	0·376	0·176	.....	" ...	54052	
	54053	1·1320	6·10	7·60	13·3	71·30	.....	.....	.....	57·44	1·560	0·790	.....	0·7	54053	Malt Extract. Low diastatic value and somewhat low solids.
	54054	1·408				78·20	.....	.....	.....	63·25	1·290	0·515	.....	56·0	54054	Malt Extract, genuine.
Prince Edward Island	60189	1·0294	4·08	5·08	8·90	6·99	1·0562	14·16	50·6	2·21	0·248	0·088	None...	None...	60190	
	60191	1·0269	3·50	4·40	7·87	11·50	1·0709	17·68	35·0	2·58	0·368	0·168	" ...	" ...	60191	
	60192	1·0179	3·30	4·14	7·25	6·09	1·0468	11·84	48·5	2·07	0·252	0·057	" ...	" ...	60192	
	60193	1·0527	2·54	3·19	5·58	14·28	1·0738	18·33	22·0	8·53	0·328	0·162	" ...	" ...	60193	
New Brunswick	66046	1·0395	3·92	4·88	8·59	10·80	1·0617	17·86	39·5	2·81	0·392	0·188	" ...	" ...	66046	
	66047	1·0580	1·30	2·00	3·50	15·40	1·0712	17·75	13·2	7·71	0·404	0·180	" ...	" ...	66047	
	66048	1·0160	3·10	3·96	6·93	6·34	1·0467	11·82	46·4	2·53	0·256	0·056	" ...	" ...	66048	
	66049	1·0472	2·10	2·70	4·74	12·92	1·0653	16·3.	20·8	8·21	0·308	0·096	" ...	" ...	66049	
	66050	1·250	8·25	10·2	17·9	55·50	.....	.....	.....	57·70	0·880	0·370	" ...	25·6	66050	Malt Extract. Liquid genuine.
	66051	1·406				77·80	.....	.....	.....	62·98	1·500	0·740	" ...	56·0	66051	Malt Extract, genuine.
	66052	1·0678	4·44	5·57	9·73	11·45	1·0775	19·12	40·6	8·35	0·516	0·102	Salicylic	None...	66052	
	66053	1·0430	3·41	4·25	7·49	5·23	1·0442	11·20	53·4	1·78	0·324	0·056	None...	" ...	66053	
Quebec City	56517	1·0375	3·44	4·32	7·58	10·63	1·0675	16·86	35·2	2·67	0·372	0·176	.....	" ...	56517	
	56518	1·0700	4·10	5·14	9·00	4·53	1·0470	11·89	62·0	1·13	0·352	0·060	.....	" ...	56518	
	56519	1·0271	5·10	6·37	11·16	9·07	1·0732	18·20	50·3	2·25	0·208	0·080	.....	" ...	56519	
	56522	1·0365	3·62	4·50	8·00	11·18	1·0713	17·77	35·4	8·37	0·292	0·088	.....	" ...	56522	
	56362	1·0449	2·38	2·98	5·18	12·19	1·0639	16·01	23·8	7·45	0·312	0·096	.....	" ...	56362	
	56363	1·0187	2·31	4·10	7·29	6·21	1·0474	11·99	48·2	2·08	0·272	0·056	.....	" ...	56363	
	56366	1·400				78·20	.....	.....	.....	63·54	1·260	0·570	.....	56·0	56366	Malt Extract, genuine
	56368	Kepler Malt Extract with glycerophosphates													56368	" " medicated.
	56369	" " Cod Liver Oil													56369	"

BULLETIN No. 326—TABLE I, PART II—MALT EXTRACTS.

Name of Inspectoral District.	No. of Sample.	Results of Analysis.														No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Sp. gr. at 15·5°C.	Alcohol. By weight.	Alcohol. By volume.	Proof spirit.	Extract by weight.	Sp. gr. of Original Wort.	Extract in Original Wort.	Degree of fermentation.	Reducing Sugar as Maltose.	Ash.	Phosphate P_2O_5	Preservatives.	Diastatic value Degrees Lintner.			
			p.c.	p.c.	p.c.	p.c.		p.c.		p.c.	p.c.	p.c.					
Quebec City.....	56370	Kepler	Malt	Extra	ct with	Hypop	hosphit	es.	.....	.....	.....	.....	.....	.....		56370	Malt Extract medicated.
	56371	"	"	"	"	Haemo	globin..	.....	.....	.....	.....	.....	.....	.....		56371	" "
	56372	"	"	"	"	Cod Li	ver Oil.	.....	.....	.....	.....	.....	.....	.....		56372	" "
Quebec Province..	273	1·0455	2·00	2·51	4·40	12·38	1·0619	15·56	.....	....	.....	.....	None.	None.		273	
	281	1·0184	3·29	4·12	7·23	6·24	1·0473	11·97	.....	.....	.....	.....	"	"		281	
	287	1·0346	3·18	3·98	6·97	10·20	1·0624	15·67	....	.....	.....	.....	"	"		287	
	56457	1·0386	4·11	5·15	9·01	11·48	1·0749	18·57	38·2	7·50	0·300	0·104	Salicylic	"		56457	
	56463	1·0185	3·33	4·18	7·32	6·21	1·0475	12·01	48·2	2·68	0·216	0·056	None.	"		56463	
	56467	1·0146	2·42	3·04	5·32	12·31	1·0649	16·23	28·6	7·40	0·336	0·170	"	"		56467	
Three Rivers.	67952	1·0174	1·81	2·27	3·99	12·77	1·0621	15·60	.....	.....	.....	.....	.....	"		67952	
	67959	1·0120	2·39	3·00	5·25	11·70	1·0622	15·63	.....	.....	.....	.. ....	.....	"		67959	
	67960	1·0366	3·71	4·63	8·13	10·93	1·0695	17·35	.....	.....	.....	.....	.....	"		67960	
	67961	1·0395	3·53	4·42	7·74	11·57	1·0707	17·63	... ..	....	.....	.....	.....	"		67961	
	67962	1·0485	2·17	2·72	4·76	13·19	1·0665	16·62	.....	.....	.....	.....	... ...	"		67962	
	67996	1·0502	1·81	2·27	3·99	13·46	1·0649	16·23	.....	.....	.....	.....	.....	"		67996	
	67997	1·0446	2·56	3·21	5·61	12·41	1·0664	16·59	.....	.....	.....	.... ..	.....	"		67997	
	69105	1·0266	4·12	5·16	9·04	8·61	1·0635	15·92	.....	.....	.....	.....	.....	"		69105	
	69109	1·0464	2·39	3·00	5·25	12·77	1·0666	16·64	.....	... ..	.....	.....	.....	"		69109	
	69113	1·0476	1·87	2·35	4·12	12·85	1·0529	15·78	.....	.....	.....	.....	.....	"		69113	
Montreal.	67316	1·0363	4·06	5·08	8·90	11·00	1·0726	18·06	.....	.....	.....	....	.....	"		67316	
	67317	1·0173	3·41	4·27	7·49	6·02	1·0474	11·99	.....	... ..	.....	.....	.....	"		67317	
	67318	1·0582	2·33	2·93	5·13	15·65	1·0778	19·19	.....	....	.....	.....	.....	"		67318	
	67319	1·0374	3·06	3·83	6·72	10·85	1·0641	16·05	.....	.....	.....	.....	.....	"		67319	
	67320	1·0328	2·50	3·14	5·49	9·50	1·0540	13·61	.....	....	.....	.....	.....	"		67320	
	67321	1·0375	2·72	3·42	5·98	10·72	1·0609	15·34	.....	....	.....	.....	.....	"		67321	
	67322	1·0130	3·65	4·56	8·00	5·04	1·0454	11·50	.....	.... .	.....	.....	.....	"		67322	
	67323	1·0285	4·69	5·86	10·26	9·36	1·0723	17·68	.....	.....	.....	.....	.....	"		67323	
	67324	1·0119	3·82	4·78	8·38	4·82	1·0460	11·65	.....	.....	.....	.....	... ...	"		67324	
	67325	1·0587	1·25	1·57	2·75	15·36	1·0688	17·18	....	.....	.....	.....	.....	"		67325	

	67326	1·0420	4·87	6·10	10·67	12·72	1·0863	21·13	...	.. ..	.....	.....	.....	"		67326		
	67327	1·423	..	...	....	81·00	....	.....	.....	... .	.....	.....	.....	"	90	67327	alt Extract Genuine.	
Eastern Town																		
ship ...	58146	1·0046	1·75	2·20	3·85	14·54	1·0088	17·48	.....	....	.....	.....	.....	None	...	58146		
	58147	1·0100	4·00	5·00	8·77	4·39	1·0458	11·60	....	...	.....	.....	.....	"	..	58147		
	58148	1·0516	1·87	2·35	4·12	13·86	1·0669	16·72	.....	.....	... ..	.....	.....	"	..	58148		
	58149	1·0391	2·72	3·42	5·98	11·13	1·0625	15·69	... ...	.....	.....	.....	.....	"	...	58149		
	58150	1·0183	3·33	4·20	7·36	6·24	1·0478	12·09	....	....	.....	.....	.....	"	...	58150		
	58151	1·0317	3·39	4·49	7·87	9·69	1·0635	15·92	.....	.....	.....	.....	.....	"	...	58151		
	58152	1·0434	3·29	4·12	7·23	12·43	1·0723	17·99	..	.....	... ...	.....	... ...	"	...	58152		
	58153	1·0423	2·22	2·79	4·89	11·70	1·0609	15·34	.....	.....	.....	.....	.....	"	...	58153		
Valleyfield	40972	1·0368	2·89	3·62	6·34	10·62	1·0618	15·54	.. ...	...	.....	.....	.....	"	...	40972		
	40973	1·0411	2·06	2·58	4·52	11·33	1·0580	14·62	.....	.....	.....	.....	.....	"	...	40973		
	57944	1·0528	1·81	2·27	3·99	14·11	1·0675	16·86	.....	.....	.....	.....	... ...	"	...	57944		
	57945	1·0382	3·59	4·49	7·87	11·28	1·0700	17·48	....	....	... ...	.....	.....	"	...	57945		
	57947	1·0252	4·69	5·86	10·26	8·48	1·0676	16·89	.	.....	.....	.....	... ...	"	...	57947		
Ottawa	63609	1·0480	1·81	2·27	3·99	12·92	1·0627	15·74	...	....	....	.....	.....	none	...	63609		
	63610	1·408	..	...	....	78·84	....	... .	....	.....	.....	.....	.....		53	63610	Malt Extract. Genuine.	
	63611	1·3174	3·88	4·85	8·51	73·70	1·3520	.. .	....	.....	.....	.....	.....		15	63611	Malt Extract. Diastatic value low, otherwise genuine.	
	63644	1·0093	3·41	4·27	7·49	3·95	1·0394	10·62	.....	.....	.....	.....	.....	none	...	63644		
	63645	1·0187	2·83	3·55	6·22	6·11	1·0432	10·95	.....	.....	... ...	.....	... ...	"	...	63645		
	63646	1·0389	5·19	6·48	11·35	12·11	1·0865	21·19	.....	.. ..	.. ....	.....	.....	"	...	63646		
	63647	1·0340	4·62	5·78	10·13	10·65	1·0757	18·74	.. ..	.. ..	.....	.....	.....	"	..	63647		
	63654	1·0091	0·89	1·13	1·97	15·54	1·0673	16·81	....	.....	.. ....	.....	.....	"	...	63654		
	63655	1·2445	9·43	11·70	20·50	58·51	1·3307	. . .	....	.....	.....	.....	.....		20	63655	Malt Extract; Liquid Genuine.	
Kingston	68046	1·0187	2·72	3·42	5·98	6·07	1·0421	10·67	.....	...	.....	.. ..	.. .. ..	none	...	68046		
	68047	1·0358	3·94	4·93	8·64	10·82	1·0710	17·70	...	... ...	.....	.....	.....	"	...	68047		
	68048	1·0444	2·50	3·14	5·49	12·33	1·0656	16·40	...	... ...	.....	.....	.....	"	..	68048		
	68049	1·0138	3·18	3·98	6·97	5·04	1·0416	10·55	.....	...	.... .	.....	.....	"	...	68049		
	68050	1·0414	2·67	3·35	5·86	11·67	1·0643	16·09	....	.. ..	.....	.....	.....	"	...	68050		
	68051	1·0414	4·94	6·17	10·81	12·60	1·0864	21·16	...	.....	.....	.....	.....	"	...	68051		
Toronto	67058	1·0185	3·06	3·83	6·72	6·11	1·0450	11·40	.....	....	.....	.....	.....	"	...	67059		
	67060	1·0412	2·61	3·28	5·74	11·66	1·0635	15·92	...	....	.....	.....	.....	"	...	67060		
	67062	1·0744	3·93	4·42	7·74	14·51	1·0818	20·10	...	...	.....	.....	.....	"	...	67062		
	67063	1·0258	2·50	3·14	5·49	6·44	1·0418	10·60	...	....	.....	.....	.....	"	..	67063		
	67064	1·0187	4·62	5·78	10·13	6·91	1·0504	15·23	...	.. ..	.....	.....	.....	"	...	67064		
	67065	1·0181	3·32	4·20	7·36	6·19	1·0476	12·04	...	.....	.....	.....	.....	"	...	67065		
	67066	1·0182	3·19	3·98	11·35	7·01	1·0657	16·42	....	.. ..	.. ....	.....	.....	"	...	67066		
	67067	1·0472	1·12	1·42	2·48	12·45	1·0593	14·18	...	...	.....	.. ....	.....	"	..	67067		
	67068	1·0299	2·28	2·86	5·01	10·04	1·0546	13·76	...	.....	.....	.....	.....	"	...	67068		
	67077	1·0477	2·17	2·72	4·76	12·99	1·0657	16·42	...	...	.....	.. ....	.....	"	...	67077		
Hamilton	66994	1·0376	3·29	4·12	7·23	6·55	1·0485	12·26	...	...	.....	.....	.....	"	...	66994		
	66995	1·0470	2·44	3·05	5·37	12·45	1·0657	16·42	...	.....	.....	.....	.....	"	...	66995		
	66996	1·0405	1·31	1·65	2·89	13·04	1·0599	15·11	...	.....	.....	.....	.....	"	...	66996		
	66997	1·0286	3·76	4·71	8·25	11·43	1·0720	17·93	...	.	. .	.....	.....	"	.	66997		
	66998	1·0139	3·41	4·27	7·49	5·59	1·0454	11·50	...	... ..	... .	.....	.....	"	.	66998		
	66999	1·0181	3·21	4·03	11·02	7·04	1·0659	16·72	. .	.. ..	.. ..	.....	.....	"	.	66999		

BULLETIN No. 326—TABLE I, PART II—MALT EXTRACTS.

Name of Inspectoral District.	No. of Sample.	Results of Analysis.														No. of Sample.	Remarks, and Opinion of the Chief Analyst.
		Sp. gr. at 15·5 C.	Alcohol. By weight.	Alcohol. By volume.	Proof Spirit.	Extract by weight.	Sp. gr. of Original Wort.	Extract in Original Wort.	Degree of fermentation.	Reducing Sugar as maltose.	Ash.	Phosphates P_2O_5.	Preservatives.	Diastatic value Degrees Lintner.			
			p. c.	p. c.	p. c.	p. c.		p. c.		p. c.	p.c.	p.c.					
Hamilton—*Con.*	67000	1·0208	3·41	4·27	7·49	6·93	1·0509	12·85	.....	.....	.....	.....	.....	None.		67000	
	67015	1·0182	4·06	5·08	8·90	6·52	1·0545	13·73	.. ..	....	.....	.....	.....	"		67015	
	67018	1·0434	2·17	2·72	4·76	11·94	1·0614	15·45	.....	...	.....	... .	.....	"		67018	
Windsor.....	54772	1·0172	5·75	7·17	12·57	6·99	1·0702	17·52	.... .	..	.... ..	.....	.....	"		54772	
	54782	1·0483	2·39	3·00	5·25	13·24	1·0685	17·41	....	.....	..... .	.... ..	. .... .	"		54782	
	54781	1·0464	3·41	4·27	7·49	5·80	1·0465	11·77	. ..	. ..	.....	.....	.....	"		54784	
	54790	1·0126	4·94	6·17	10·81	5·48	1·0576	14·52	....	...	.....	.....	.. ..	"		54790	
	54793	1·0121	3·47	4·34	7·61	4·71	1·0427	10·82	...	... .	.....	.....	... ...	"		54793	
	54795	1·0125	6·00	7·48	13·11	5·87	1·0678	16·91	.....	.....	.....	.....	.....	"		54795	
	54796	1·0374	3·29	4·12	7·23	10·95	1·0663	16·57	. ....	.....	.....	.....	.....	"		54796	
	54613	1·0376	2·51	3·21	5·61	10·67	1·0594	14·99	.....	....	.....	.....	.....	"		54613	
	54619	1·0378	3·59	4·49	7·87	11·18	1·0696	17·38	.....	....	.....	... ...	.....	"		54619	
Manitoba.....	61291	1·0168	4·87	6·10	10·67	6·50	1·0611	15·38	.... .	.....	.....	.....	.....	"		61291	
	61292	1·0476	2·11	2·62	4·64	12·94	1·0651	16·27	.....	.....	.....	.....	... ..	"		61292	
	61293	1·0198	3·29	4·12	7·23	5·56	... .	....	... .	1·16	0·21	0·060	None.	"		61293	
	61294	1·0316	3·59	4·49	7·87	9·00	.... .	....	....	7·65	0·27	0·097	Sulphites	"		61294	
	61295	1·0468	2·50	3 14	5·49	11·91	.....	.....	. ...	8·56	0·38	0·168	"	Trace.		61295	
Saskatchewan.....	66358	1·0483	1·91	2·43	4·26	13 01	1·0641	16·05	.....	.....	.....	.....	.....	None.		66358	
	66361	1·0202	2·78	3·49	6 10	6·47	1·0142	11·20	.....	. ...	.....	.....	... .	"		66361	
	66374	1·0349	2·44	3·07	5·37	9·97	1·0556	14·01	..	.....	.....	.. ....	.....	"		66374	
Alberta	52140	1·418	0·00	.....	.....	80·36	.....	. .. ..	.....	62·16	2·00	0·90	... .	112·6		52140	Malt Extract. Genuine.
	52141	1·0374	3·60	4 5	7·9	11·24	.. ..	.....	. ...	2·57	0·37	0 18	....	None.		52141	
	52142	1·0441	2·24	2·8	5·0	12·35	..	. ....	.....	6·38	0·31	0·14	Salicylic acid.	"		52142	
	52143	1·431	0·00	..	...	82·16	.....	.... .	....	61·20	1·52	0·62	.....	99·9		52143	Malt Extract. Genuine.
	52144	1·2434	8·60	10·7	18·8	58·44	....	.....	.....	59·96	0·92	0·34	.....	9·2		52144	" Liquid. Genuine.
	52145	1·3216	3·11	3·9	6·8	71·84	.....	.. . .	.....	57 40	1.20	0·48	.. ..	39·1		52145	Malt Extract. Genuine.
	52153	1·0173	3·35	4·2	7·4	5·81	...	..... .	.....	1·70	0·25	0·06	Sulphurous acid.	None.		52153	

	52183	1·0171	3·34	4·0	7·1	5·74	.....	.....	..	1·66	0·25	0·06	.....	"	52183	
Rocky Mountains	61801	1 0167	3·48	4·4	7 6	5 80	.....	.....	...	1·71	0·27	0·06	Sulphurous acid.	None...	61801	
	61802	1·424	0·00	..	.....	81·60	.....	.....	.....	73·88	1·44	0·54	.... ..	54·6	61802	Malt Extract. Genuine.
	61819	1 0491	2 24	2 8	4·9	13·29	.....	.. ...	....	9·23	0·40	0·18	.....	None...	61819	
	6182-	1 0476	2·17	2 7	4·8	13·21	.....	.....	.....	6·81	0·31	0·15	.....	" ...	61823	
	61838	1 429	0 00	..	...	81·96	.....	...	.....	56·40	1·32	0·59	.. ..	13·4	61838	Malt Extract; diastatic value low. Otherwise genuine.
	61839	1 0014	5 08	6 3	11 1	2·41	.. ....	....	. ....	0·49	0 28	0·06	.....	None...	61839	
Vancouver	55276	1 0167	3·42	4·3	7·5	5·70	.....	.... ..	.....	1·68	0 27	0·06	.....	" ...	55276	
	55277	1 425	0 00	..	..	81 72	.... ..	...	.....	72·60	1·40	0·50	.....	54·7	55277	Malt Extract. Genuine.
	55278	1 0028	4·77	5 9	10·4	2 87	.... .	.....	....	0 44	0 22	0·05	.....	None...	55278	
	55279	1 0454	2 25	2 8	4 9	12 35	.....	.....	.....	6 49	0·31	0·15	.... ..	" ...	55279	
	55280	1 0656	3 77	4·7	8 3	10·72	.... .	.... .	...	2·41	0 35	0·17	.....	" ...	55280	
	55281	1 0509	3 36	4 2	7·4	9 49	.....	.....	....	2 46	0·26	0 09	. ....	" ...	55281	
	55282	1 0345	2 70	3 4	6 0	9 83	.....	.. ..	.....	7·35	0·34	0·15	.....	" ...	55282	
	55283	1 0138	4 11	5 1	9 0	5·35	.. ..	.....	....	1·64	0·21	0 09	.....	" ...	55283	
	55284	1 0063	1 43	1 8	3 2	16 02	.. ..	.....	.....	7·38	0 38	0·15	Salicylic acid.	" ...	55284	
Victoria	66712	1 0367	3 57	4 5	7 9	11 11	.... ..	.....	.....	2·36	0·38	0·18	.....	" ...	66712	
	66741	1 3208	3 25	4 0	7·1	70·80	....	...	. .	57·72	1·24	0·46	.....	54·8	66741	Malt Extract. Genuine.
	66745	1 427	0 00	..	.....	81 60	.....	....	.....	60 88	1·40	0 50	.....	111 0	66745	" "
	66747	1 0189	3 29	4 1	7 2	6 10	.....	....	...	1·77	0 23	0·06	.....	None...	66747	
	66751	1 0439	2 25	2 8	4 9	12 26	.....	.....	.. .	6·29	0·36	0 16	.....	" ...	66751	
	66753	1 0508	1 27	1 6	2 8	16 04	...	.. ..	.....	7 55	0·38	0·16	Salicylic acid.	" ...	66753	
	66754	1 4472	0 00	..	.....	83 16	..	.....	....	70 50	1·64	0·53	. . ...	13 6	66754	Malt Extract; diastatic value low. Otherwise genuine.
	66758	1 0271	3 64	4·6	8 0	8 73	..	....	....	2 50	0 28	0·10	.....	None...	66758	

APPENDIX R.

BULLETIN No. 327—BLEACHING POWDER.

(Chlorinated Lime; Chloride of Lime; Chlorure de Chaux; Calx Chlorinata).

J. U. VINCENT, ESQ., OTTAWA, November 15, 1915.
Deputy Minister of Inland Revenue,

SIR,—

The article referred to under the names given is generally known in Canada as Bleaching Powder or as Chlorure de Chaux. It is greatly in demand in washing linen, and for disinfecting purposes. The British Pharmacopoeia (Edition 1914) describes it under the names *Calx Chlorinata* and *Chlorinated Lime;* and gives the following characters and tests:—

"A dull white powder with a characteristic chlorinous odour, becoming moist and gradually decomposing on exposure to air. Partially soluble in water. The solution yields the reactions characteristic of calcium and of chlorides, and evolves chlorine copiously upon the addition of an acid. 0·5 gramme of Chlorinated Lime, mixed with 1·5 grammes of potassium iodide dissolved in 200 millilitres of water, gives, when acidified with 6 millilitres of hydrochloric acid, a reddish solution, which requires for decoloration not less than 42·3 millilitres of N/10 solution of sodium thiosulphate, corresponding to not less than 30 per cent of available chlorine."

The one hundred and one (101) samples now reported may be classified as follows:—

Yielding 30 per cent of chlorine.....	21	samples.
" 25 per cent of chlorine.....	41	"
" 20 per cent of chlorine.....	26	"
" 10 per cent of chlorine.....	8	"
" less than 10 per cent chlorine.....	5	"
Total.....	101	"

Attention was directed to this subject by certain work reported to me by Mr. G. M. Land, of the Ontario Agricultural College, Guelph, who found, in ten market samples of Bleaching Powder, amounts of available Chlorine varying from 14·90 per cent to 23·40 per cent; and who adds: "I should like to know from you, if possible, if my tests are representative of the chloride of lime as retailed in pound and half pound packages, throughout the Province; as it seems to me that it is a question of low test, and short-weight all round."

The results of this inspection show the article to be, as a rule, of very poor quality, only about 20 per cent of the samples meeting pharmacopoeal requirements; and many samples being practically worthless. It is well understood that Bleaching Powder is a perishable article, in the ordinary sense of that word. It can only be kept for any length

of time, in good condition, by being carefully packed, and stored in a cool and dry place. But dealers should be fully aware of the nature of the goods they handle. It will be understood that the finding of the analyst does not necessarily mean that the article as originally manufactured, or as furnished to the retail dealer, was below standard strength. It does however mean that the article, as furnished to the consumer (the public) was below standard strength, and that the public has a just cause for complaint.

In the case of twenty samples the gross and net weight has been determined. As a rule the net weight meets the guarantee given on the label.

I beg to recommend publication of this report as Bulletin No. 327.

I have the honour to be, sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vend r.	Cost.		Name and Address of Manufacturer or Furnisher as given by the vendor.	
				Quantity	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1915.							
Sept. 9	Bleaching Powder.	64226	Nat. Drug and Chem. Co., Halifax.	3 pkgs	12	A. Mendleson's Sons, Albany.	....
DISTRICT OF CAPE BRETON—							
Sept. 8	Bleaching Powder.	63830	F. & J. Morley, Sydney..	3 lb..	30	White Swan S. & C. Ltd., Toronto.	... .
" 8	Chloride of Lime.	63831	G. F. Miles, Sydney.	3 " ..	30	Alpha Chem. Co., Berlin. Ont.	... .
" 8	" .	63832	J. J. Turnbull, Sydney...	3 " ..	30	E. G. West & Co., Toronto.	.. ..
" 8	" .	63833	Earl S. Auld, Sydney	3 " ..	60	A. Mendleson's Sons, Albany, N.Y.	. . ..
DISTRICT OF PRINCE EDWARD ISLAND—							
Sept. 10	Chloride of Lime.	60323	Coffin & Co., Charlottetown.	3 pkgs	45	Alpha Chem. Co., Berlin, Ont.	.. ..
" 14	" .	60324	Johnson & Johnson, Charlottetown.	3 "	60	Lyman's, Ltd., Montreal.	....
" 24	" .	60325	C. D. Rankin, Charlottetown.	3 "	60	A. Mendleson's Sons, Albany, N.Y.	. . ..
" 24	" .	60326	McKinnon Drug Co., Charlottetown.	3 "	30	" " ..	.. ..
" 24	" .	60327	Beer & Goff, Charlottetown.	3 "	45	United Alkali Co., St. Helens, Eng.	....
DISTRICT OF NEW BRUNSWICK—							
July 15	Bleaching Powder.	66111	Nat. Drug and Chem. Co., St. John.	3 pkgs	60	Mendleson's Sons, Albany, N.Y.	....
" 20	"	66112	O. Neill Co., Pharmacy, St. John.	3 "	30	" " ..	... .
Aug. 11	" .	66113	Estate of A. J. Waterson, St. Stephen.	3 "	30	" " ..	... .
" 17	" .	66114	Charles Burchill, Fredericton.	3 "	45	" " ..	....
" 24	" .	66115	C. H. Fairweather, Sussex.	3 "	51	Lymans, Ltd., Montreal.	....

SESSIONAL PAPER No. 14

BLEACHING POWDER.

Inspector's Report. (Is not an expression of opinion.)	Brand.	Results of Analysis. Available Chlorine. Claim.	Available Chlorine. Found.	Container.	Condition of Powder.	—	No. of Sample.	Remarks and Opinion of the Chief Analyst.
R. J. WAUGH, INSPECTOR.								
		p. c.	p. c.					
Labelled Chloride of Lime.	Hudson	30 0	28 3	....	. ...	... .	64226	
E. T. McKEEN, INSPECTOR.								
....	White Swan.	.....	29 3	..... .	. .....	....	63830	
.....	....	....	4 1	Cardboard	....	Container Broken.	63831	Below standard.
.. ..	West's.. ...	.....	16 3	"	. .....	. .....	63832	
....	Hudson	30 0	24 8	....	.....	. . ....	63833	
WM. A. WEEKS, INSPECTOR.								
.. ..	....	....	11 15	Cardboard	....	.....	60323	Below standard.
....	Crescent....	30 0	27 6	.....	. . . .	.....	60324	
. .....	Hudson	30 0	30 15	.... ..	... ...	.....	60325	
....	"	30 0	25 0	.....	.....	.....	60326	
. . . .	Greenbank..	.	25 7	. .	. .	.	60327	
JOHN C. FERGUSON, INSPECTOR.								
		p. c.	p. c.					
.....	Hudson. .	30 0	27 10	.....	.....	...	60111	
....	" ...	30 0	28 20	...	.....		60112	
Hudson Brand	" ...	30 0	29 70	...	.....	.	60113	
"	" ...	30 0	28 40	.	.	.	60114	
Crescent "	Crescent ..	30 0	30 40	.....	.....	.....	60115	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF QUEBEC PROVINCE—J. E. AUDET, O. BROCHU				
1915.							
July 7	Bleaching Powder.	3606	Dorchester Lumber, Ste. Malachie, Co. Dorchester.	3 pkgs	15	Mendleson's Sons, Albany.	.....
" 15	Chlorure Chaux.	3621	A. Caillouette, Ste. Justine.	3 "	30	Sultana Lemeated, Montreal.	.....
" 23	Bleaching Powder.	3632	P. T. Renaud, Beauceville.	3 "	30	.....	.....
" 26	Chloride of Lime.	3633	J. A. Poulin, Valley Jct..	3 "	30	J. B. Renaud & Co., Quebec.	.....
" 22	Chlorure Chaux.	3600	Geo. Roy, St. Michel.....	3 "	45	A. Mendleson's Sons, Albany.	.....
" 12	"	292	Avila Lauzon, St. Jerome.	3 "	15	United Alkali Co..	.....
" 19	"	305	Hon. Giroux, Ste. Agathe des Monts.	3 "	15	Hudson	.....
" 12	"	316	H. Coté, St. Faustin Station.	3 "	30	Northrup & Lyman.	.....
" 19	Chloride of Lime.	2776	Alphonse Letourneau, St. Pierre, Montmagny.	3 "	30	J. A. Blanchard, New York.	.....
" 20	"	2781	Ivanhoe Caron, Cap St. Ignace.	3 "	30	" " ..	.....
" 21	"	2786	Jos. Fournier, St. Thomas, Montmagny.	3 "	30	Northrup & Lyman, Toronto.	.....
			DISTRICT OF THREE RIVERS—				
July 9	Bleaching Powder.	69144	Monahan Bros., St. Lin..	3 pkgs	15	Chaput Son, Montreal.	.....
" 9	"	69145	Alfred Henri, St. Lin ...	3 "	13	Hudson Co., Ltd., Montreal.	.....
" 10	"	69146	R. Charbonneau, St. Esprit.	3 "	15	Northrup, Lyman, Toronto.	.....
" 22	"	69148	L. O. Lassalle, St. Jacques.	3 "	15	Hudson Co., Ltd., Montreal.	.....
" 13	"	69149	L. Pauze, L'Assomption..	3 "	30	Greenbank, Why, St. Helen's, Eng.	.....
" 14	"	69150	W. H. Lacasse, L'Assomption.	3 "	15	Hudson Co., Ltd., Montreal.	Jos. Dufresne, Joliette.
			DISTRICT OF EASTERN TOWNSHIPS—				
Aug. 24	Bleaching Powder.	63094	L. D. Girard, Drummondville.	3 tins.	35	Lyman, Ltd., Montreal.	.....
" 24	"	63095	" " ..	3 "	15	United Alkali Co., England.	.....
" 25	"	63096	J. H. E. Brodeur, St. Hyacinthe.	3 "	45	A. Mendleson Son, Albany, N.Y.	.....
" 25	"	63097	S. Bourgeois & Co., St. Hyacinthe.	3 "	45	United Alkali Co., England.	.....
" 25	"	63098	C. Pagnuch, St. Hyacinthe.	3 "	30	S. J. Carter Co., Montreal.	.....

SESSIONAL PAPER No. 14

BLEACHING-POWDER.

Inspector's Report. (Is not an expression of opinion).	Brand.	Results of Analysis.				—	No. of Sample.	Remarks and Opinion of the Chief Analyst.
		Available Chlorine.		Container.	Condition of Powder.			
		Claim.	Found.					
N. CADIEUX AND T. GENDREAU, TEMPORARY INSPECTORS.								
		p. c.	p. c.					
			13·5	Can	Dry		3606	Below standard.
			31·8	"	"		3621	
		30·0	29·4	"	"		3632	
			24·0	"	"		3633	
			0·14	"	Very pasty.		3600	Below standard.
			31·6	Tin.	Dry		292	
			9·7	Can	Fairly dry		305	Below standard.
			26·4	"	Dry		316	
			18·6	Paste-board.	Like paste	Top eaten off.	2776	Below standard.
			6·8	"	Very pasty.		2781	"
			17·6	Can	Moist		2786	"
DR. V. P. LAVALLEE, INSPECTOR.								
			29·74	Can	Dry		69144	
			25·45	"	Fairly dry		69145	
		30·0	29·17	"	Dry		69146	
			26·45	"	Fairly dry		69148	
			29·46	"	Dry		69149	
			19·73	"	Fairly dry		69150	Below standard.
J. J. COSTIGAN, ACTING INSPECTOR.								
Crescent			22·65	Tin	Slightly moist		63694	Below standard
			27·46	"	Dry and powdered		63695	
Hudson			24·36	"	Dry		63696	
			21·28	"	"		63697	Below standard
		30·0	27·59	"	Slightly moist		63698	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF MONTREAL—
1915.							
Aug. 26	Bleaching Powder.	67416	Murphy & Riordon, 871 St. Catherine St. W., Montreal.	3 pkgs	15	A. Mendleson Sons.	.....
" 26	"	67417	W. J. Brown, 888 St. Catherine St. W., Montreal.	3 "	45	Alpha Chem. Co..	.....
" 26	"	67418	Jas. Graham, 4451 St. Catherine St., Westmount.	3 "	45	.....	Hudon, Hebert & Co.
" 30		67419	C. E. Box, 4846 Sherbrooke St., Westmount.	3 "	45	United Alkali Co..	....
" 30	"	67420	J. S. Benoit, 1379 Green Ave., Westmount.	3 "	45	Sultana Ltd	.....
							DISTRICT OF VALLEYFIELD—
Aug. 28	Bleaching Powder.	67201	A. Bissonnette, St. Zotique, P.Q.	3 tins.	45	Sultana, Ltd.....	.....
" 28	"	67202	G. Pilon, St. Zotique, P.Q.	3 "	30	United Alkali Co., Ltd.	.....
" 30	"	67203	L. C. Dumesnil, River Beaudette.	3 "	45	Sultana, Ltd.....	....
" 31	"	67204	Miss P. Guimond, Beauharnois, P. Q.	3 "	30	United Alkali Co.	....
" 31	"	67205	J. A. Faubert, Beauharnois, P.Q.	3 "	15	A. Mendleson	.....
							DISTRICT OF OTTAWA—
July 14	Bleaching Powder	51683	W. F. Gibson, 1105 Bank St., Ottawa.	3 Lb.	45	A. Mendleson's Sons.	Lymans Ltd., Montreal.
" 14	"	51684	A. S. Moreland, 819 Bank St., Ottawa.	3 pkg.	30	The Alpha Chem. Co., Berlin, Ont.	....
Aug. 12	"	51685	A. Bourguignon, Booth St., Ottawa.	3 tins.	30	Unknown.....	S.J. Major, Ltd., Ottawa.
July 10	"	63684	S. E. Johnston, Arnprior	3 "	30	A. Mendleson's Sons, Albany, N.Y.	Nat. Drug. & Chem. Co., Ottawa.
" 13	"	63685	Wm. Hughes, Carleton Place.	3 box.	40	E.G. West & Co., Toronto.	... .
							DISTRICT OF KINGSTON—
Sept. 1	Chloride of Lime.	61081	W. W. Gibson, Kingston.	3 tins.	30	....	N. C. Polson Co., Kingston.
" 1	"	61082	Jas. B. McLeod, Kingston	3 "	30	....	....
" 1	"	61083	L. T. Best, Kingston.....	3 "	30	....	.....
" 1	"	61084	A. P. Chown, Kingston..	3 "	45	A. Mendleson's, New York.	.....
" 1	"	61085	T. H. Sargent, Kingston..	3 "	30	....	.....

SESSIONAL PAPER No. 14

BLEACHING POWDER

Inspector's Report. (Is not an expression of opinion.)	Brand.	Results of Analysis. Available Chlorine. Claim.	Available Chlorine. Found.	Container.	Condition of Powder.	—	No. of Sample.	Remarks and Opinions of the Chief Analyst.
D. J. KEARNEY, INSPECTOR.								
		p. c.	p. c.					
Purchased as Chloride of Lime.			24·5	Can	Dry, coarse.		67416	
" "			13·6	Pasteboard.	Fine, dry.		67417	Below standard.
" "			30·1	Can	Dry and caked.		67418	
" "			30·2	"	"		67419	
" "			31·1	Enameled can.	"		67420	
D. J. KEARNEY, ACTING INSPECTOR.								
Purchased as Chloride of Lime.			28·6	Can	Hard dry cake.		67201	
" "			0·8	"	Very wet paste.		67202	Below standard.
" "			26·5	"	Hard cake and coarse		67203	
" "			30·2	"	Fine, dry.		67204	
" "			18·3	"	Dry, coarse.		67205	Below standard.
J. A. RICKEY, INSPECTOR.								
Crescent High Test. 30 avail Chlorine.		30·0	27·1	Tin	Dry		51683	
Moody's Royal			14·1	Pasteboard	"		51684	Below standard.
Reina High Test			29·0	Can	"		51685	
High Test			30·4	Tin	"		63684	
"			18·7	Pasteboard	"		63685	Below standard.
JAMES HOGAN, INSPECTOR.								
			30·1	Tin	Dry and well powdered		61081	
Moody's Royal			16·7	Pasteboard	Dry but solid		61082	Below standard.
"			16·5	"	Dry powdered on top		61083	"
		35·0	21·9	Tin	Dry		61084	"
Moody's Royal			19·7	Pasteboard	Dry but solid.		61085	"

BULLETIN No. 327—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF TORONTO—							
1915.							
Aug. 10	Bleaching Powder.	69913	T. Park, 954 St. Clair Ave., Toronto.	3 pks.	30	.....	White Swan S. & C. Co., Ltd., Toronto.
" 11	" ..	69914	E. F. Sears, 330 Danforth Ave., Toronto.	3 "	15	W. Wilson, Toronto.	.....
" 14	" ..	69916	Hill & Shields, Weston ..	3 "	30	Alpha Chem. Co., Berlin, Ont.	.. ..
DISTRICT OF HAMILTON—							
July 21	Bleaching Powder.	70031	Roddy & Walker, St. Catharines.	3 pkgs.	15	Alpha Chem. Co., Ltd., Berlin.	.....
" 23	" ..	70033	F. A. Berriman, 149 Queen St., Niagara Falls.	3 "	30	Eaze Mfg. Co., Ltd., Toronto.	....
Aug. 5	" ..	70063	Jas. J. McQuarrie, 11 King William St., Hamilton.	3 "	25	The Canadian Crystal Co., Toronto.	....
DISTRICT OF WINDSOR—							
Sept. 3	Chloride of Lime.	54672	R. N. Thurtell, Ingersoll.	3 s.	30	Alpha Chem. Co., Berlin, Ont.	....
" 3	" ..	54673	A. G. Law, Ingersoll.....	3 "	30	Nat. Drug & Chem. Co.	.....
" 3	" ..	54674	A. J. Gill, Ingersoll.....	3 "	30	Alpha Chem. Co., Berlin, Ont.	....
" 3	" ..	54675	John E. Gayfeer, Ingersoll.	3 "	30	" ..	....
" 3	" ..	54676	H. Avery, Ingersoll.....	3 "	30	John B. Paine Co., Toronto.	....
" 3	" ..	54677	F. McDougall, Ingersoll..	3 "	30	Nat. Drug Co.....	.....
" 3	" ..	54678	Bruce Phillips, Ingersoll..	3 "	30	John B. Paine Co , Toronto.	....
" 4	" ..	54679	B. A. Mitchell, London ..	3 "	30	Nat. Drug Co.....	... .

SESSIONAL PAPER No. 14

BLEACHING POWDER.

Inspector's Report. (Is not an expression of opinion.)	Brand.	Results of Analysis. Available Chlorine. Claim.	Available Chlorine. Found.	Container.	Condition of Powder.	—	No. of Sample.	Remarks and Opinion of the Chief Analyst.
H. J. DAGER, INSPECTOR.								
		p. c.	p. c.					
Labelled White Swan Chloride & Lime or Bleaching Powder.	White Swan	30·0	20·4	Can	Dry		69913	Below standard.
Labelled Wilson's Chloride of Lime.	Wilson's	.....	36·75	Paste-board.	"		69914	"
Labelled Moody's Royal Chloride of Lime.	Moody's Royal.	.....	18·60	"	"		69916	
H. J. DAGER, ACTING INSPECTOR.								
Moody's Royal Carbonized Chloride of Lime.	Moody's Royal.	.....	17·5	Paste-board.	Dry, very light.		70931	Below standard.
The Home Bleacher Triple X.	Triple X	.....	21·8	"	Dry		70933	"
The Canadian Chlorides of Lime.	Canadian	.....	26·3	"	Not extra dry.		70932	
JOHN TALBOT, INSPECTOR.								
Moody's Royal Carbonized Chloride of Lime.	Moody's Royal.		17·06	Paste-board.	Dry hard cake.		54072	Below standard.
N. D. & C. Co	N.D.&C. Co		27·77	"	Soft coarse grained		54073	
Moody's Royal Carbonized Chloride of Lime.	Moody's Royal.		15·36	"	Dry, fine		54074	Below standard.
" "	"		13·11	"	"		54075	"
Bull Dog Brand Chloride of Lime.	Bull Dog		31·5	Enamelled metal can	Coarse, dry		54076	
N. D. & C. Co	N.D.&C. Co		18·75	Paste-board			54077	Below standard.
Bull Dog Brand Chloride of Lime.	Bull Dog		31·7	Enamelled metal can			54078	
Chloride of Lime N. D. & C. Co.	N.D.&C. Co		27·3	Paste-board			54079	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF MANITOBA—								
1915.								
Aug. 30	Bleaching Powder.	61370	Argue & Co., Roland	3 pkgs	60	Martin Bole, Wynne Co., Winnipeg.	.....	.....
Sept. 1	"	61371	Dunlop Drug Dept., 448 Main St., Winnipeg.	3 "	30	A. Mendleson Co.	.....	.....
" 1	"	61372	Gordon Mitchell Drug Co., Winnipeg.	3 "	30	Vendors	.....	....
" 1	"	61373	W. W. Starr, 807 Portage Ave., Winnipeg.	3 "	25	Martin Bole, Wynne Co., Winnipeg.	... .	....
" 1	"	61374	W. McCulloch, 647 Portage Ave., Winnipeg.	3 "	45	John B. Paine & Co., Toronto.	....	.....
DISTRICT OF SASKATCHEWAN—								
ept. 21	Chloride of Lime	66432	Regina Trading Co., Regina.	3 pkgs	40	E. G. West & Co., Toronto.	Mfr.....	....
" 21	"	66432	Canada Drug and Stationery Co., Regina.	3 "	50	Nat. Drug and Chem. Co., Toronto.	"	.....
" 21	"	66434	E. L. Colling, Moose Jaw.	3 "	40	Martin Bole & Wynne, Winnipeg.	"	. . ..
" 21	"	66435	F. Marlatt, Moose Jaw.	3 "	45	J. B. Paine Co., Toronto.	Martin Bole & Wynne, Winnipeg.	....
" 21	"	66436	Moose Jaw Drug and Stationery Co., Moose Jaw.	3 "	40	E. G. West, Toronto.	Mfr..	....
DISTRICT OF ALBERTA—								
Sept. 10	Bleaching Powder.	52216	Nat. Drug and Chem. Co., Calgary.	3 pkgs	35	. .. .	J. B. Paine Co., Ltd., Toronto.	....
" 10	"	52217	Oliver Bros., Ltd., Calgary.	3 "	40	....	Nat. Drug & Chem. Co., Calgary.	....
" 10	"	52218	Perry Drug Co., Calgary.	3 "	40	J. B. Paine Co., Ltd., Toronto.	....	.....
" 10	"	52219	J. D. J. McDonald, Calgary.	3 "	30	.....	Nat. Drug & Chem. Co., Calgary	....
" 10	"	52220	J. Findlay Drug Co., Calgary.	3 "	30	United Alkali Co., St. Helens, Eng.	....	....

SESSIONAL PAPER No. 14

BLEACHING POWDER.

Brand.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Available Chlorine.		Container.	Condition of Powder.	Weight.				
	Claim.	Found.			Claimed.	Net as found in Ounces.	Gross as found in Ounces.		
J. B. COSGROVE, TEMPORARY INSPECTOR.									
	p. c.	p. c.				p. c.	p. c.		
.. ..	....	33·2	Pasteboard.	Dry.	.. ..	.....	.....	61370	
....	.....	32·2	Tin	"	... .	....	....	61371	
... .	.....	34·7	Pasteboard	"	.....	....	....	61372	
.....	.....	34·7	"	"	.....	....	.....	61373	
....	.....	29·7	Tin	"	.....	....	..	61374	
L. H. HALL, TEMPORARY INSPECTOR.									
... .	.....	15·6	Pasteboard.	Very dry ...	....	.....	....	66432	Below standard.
....	.... .	25·1	"	Partially wet.	... .	.....	...	66433	
. ...	...	35·3	"	Dry ...	....	...	.	66434	
. .....	.....	31·7	"	"	....	.	...	66435	
. ..	..	16·1	"	"	....	.	...	66436	Below standard
A. W. R. MARKLEY, INSPECTOR.									
... ...	..	25·75	...	...	1 lb. full weight.	15·20	16·77	3216	
... ...	.. ..	23·65	... .	... .	...	15·34	16·98	3217	Below standard
....	.....	31·30	.....	.....	....	11·01	14·15	3218	
.....	.....	17·40	... ...	.....	½ lb. full weight.	6·81	7·94	3219	Below standard
... ...	...	18·50	... ...	...	...	9·83	11·08	3220	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion).
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF ROCKY MOUNTAINS—								
1915.								
July 20	Bleaching Powder.	61860	Agnew & Co., Rossland.	3 tins.	60	The F. F. Dalley Co., Hamilton.	.....	.....
Aug. 6	"	61863	The Okanagan Grocery, Vernon.	3 pkgs	40	The W. H. Malkin Co., Vancouver.	.....	.....
" 6	"	61864	W. R. Megan, Vernon.	3 "	40	Wilson Bros., Victoria.	.....	.....
" 10	"	61871	R. McColl, Kamloops.	3 "	45	The Columbia Chem. Co., New York.	McLennan & McFeely Vanc.	.....
" 10	"	61879	Hudson's Bay Co., Kamloops.	3 "	30	Hudson's Bay Co., Vancouver.	.....	.....
DISTRICT OF VANCOUVER—								
July 20	Bleaching Powder.	55323	H. Ryall, Columbia St., New Westminster.	3 tins.	45	A. Mendleson's Sons, New York.	.....	Hudson High Test.
" 20	"	55324	C. A. Welsh, Ltd., 681 Columbia St., New Westminster.	3 "	40	Col. Chem. Co., New York.	.....	Columbia Brand.
" 20	"	55325	Annandale Supply Co., Columbia St., New Westminster.	3 "	40	.....	W. H. Malkin Co., Ltd., Vancouver.	Sanitary Brand.
" 20	"	55326	Fraser River Supply Co., 548 Columbia St., New Westminster.	3 "	30	.....	A. Macdonald & Co., Vancouver.	White Star Brand.
" 21	"	55327	David Spencer, Vancouver.	3 "	30	.....	.....	Tiger Brand, specially packed for vendor.
DISTRICT OF VICTORIA—								
July 29	Bleaching Powder.	66779	F. J. Williams, 613 Fort St., Victoria.	3 tins.	50	A. Mendleson's Sons, Albany, N.Y.	.....	Hudson's High Test. Chloride of Lime.
" 29	"	66781	H. O. Kirkham Co., 741 Fort St., Victoria.	3 "	40	Columbia Chem. Works, Chicago.	.....	Columbia Chlorinated Lime.
" 30	"	66785	Acton Bros., 1117 Douglas St., Victoria.	3 "	45	"	.....	"
Sept. 22	"	66786	Nat. Drug & Chem. Co., 512 Yates St., Victoria.	3 pkgs	30	Alpha. Chem. Co., Berlin, Ont.	.....	Chloride of Lime
" 23	"	66788	Windsor Grocery Co., 817 Government St., Victoria.	3 "	35	.....	R. P. Rithet & Co., Victoria.	St. James Chlorinated Lime.

SESSIONAL PAPER No. 14

BLEACHING POWDER.

Brand.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Available Chlorine.		Container.	Condition of Powder.	Weight.				
	Claim.	Found.			Claimed.	Net as found in ounces.	Gross as found in ounces.		
THOS. PARKER, INSPECTOR.									
	p.c.	p. c.				p. c.	p. c.		
Royal	30·0	30·45	....	....	12 ounces net weight.	12·08	14 69	61899	
Sanitary....	30·0	28·90	.....	.....	" ..	11·31	13 90	61863	
Wilson's....	30·0	28·80	....	.....	" ..	12 98	15 57	61864	
Columbia...	.....	20·95	.. ..	....	.. ..	12 63	15 24	61871	Below standard
Imperial...	. ..	25·80	... .	....	....	13·61	16 47	61879	
E. J. MORGAN, INSPECTOR.									
Hudson ..	35 0	25 10	.....	....	14 ounces net weight.	12 78	15 64	55325	
Columbia...	30 0	28 90	... .	. . ..	12 ounces net weight.	12 80	15 4.	55324	
Sanitary....	30 0	27 50	....	. . ..	" ..	12 98	15 63	55325	
White Star..	30 0	29 50	... .	... .	"	11 98	14 78	55326	
Tiger	30 0	29 75	....	... ..	"	12 98	15 77	55327	
D. O'SULLIVAN, INSPECTOR.									
Hudson	35·0	27 10	.	.	14 ounces net weight.	12 18	15 05	66779	
Columbia.. .	25 0	19 05	Cardboard ..	Damp and pasty.	" .	15·63	17 89	66781	Below standard
"	25 0	19 80	"	.	"	15 61	18 04	66783	
. .. .	....	18 00	....	....	1 lb. full weight	13 23	14 91	66780	
St. James ..	30·0	25 20	....	.....	12 ounces net weight.	13 44	16 23	66785	

APPENDIX S.

BULLETIN No. 328—SALAD OIL.

OTTAWA, November 25, 1915.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue,

SIR,—I beg to hand you a report upon the examination of one hundred and fifty-nine (159) samples sold as Salad Oil. This collection was made in July, August and September of the present year, and covers all the Inspectoral Districts.

Edible Vegetable Oils are defined by an Order in Council of March 28, 1912, published as Circular G. 1002, in the following terms.

28. G. 1002.
FOOD. 10,000.

DEPARTMENT OF INLAND REVENUE.

OTTAWA, April 9th, 1912.

MEMORANDUM.

Under the authority of an Order of His Royal Highness, in Council, bearing date the twenty-eighth day of March ultimo. and in virtue of the provisions of the twenty-sixth section of the "Adulteration Act," the following standards of quality have been established for "Edible Vegetable Oils":—

EDIBLE VEGETABLE OILS.

1. *Olive Oil, Sweet Oil,* is entirely a product of the fruit of the olive tree.
   Its specific gravity, at 15·5° C., is not less than 0·9140 nor more than 0·9196.
   Its specific refractive index, at 15·5° C., is not less than 1·4700 nor more than 1·4718.
   Its Maumene number lies between 42 and 52.
   Its iodine absorption number (using the Hubl solution) lies between 77% and 94%.
   Its saponification number (Koettstorfer number) lies between 185·0 and 195·0.
   It does not contain above 3·5% of free fatty acids.
2. *Cotton Seed Oil* is the oil obtained from the seeds of cotton plants and subjected to refining processes. It is free from rancidity; has specific gravity, at 15·5° C., between 0·9216 and 0·9300; has a refractive index (at 25° C.) not less than 1·4700 and not more than 1·4725, and an iodine number not less than 104 nor more than 110 (Hubl solution).
3. *Salad Oil.* Either of the above may be sold as salad oil; but when Cotton Seed Oil is offered as Salad Oil, the fact that the article is Cotton Seed Oil must be declared on the label.
4. Mixtures of *Cotton Seed Oil* with *Olive Oil* must be so declared on the label.

The standards above defined take effect on the 13th May proximo.

W. J. GERALD,
Deputy Minister.

Since the effective date of the above Order in Council (May 13, 1912), two systematic inspections have been reported. In December 1912 and January 1913, thirty-six samples of Olive Oil were collected and examined, (See Bulletin 256). On the whole, the results of this inspection were satisfactory, only two samples being found adulterated. During the summer of 1914, one hundred and fourteen (114) samples of Olive Oil and Salad Oil were examined (Bull. 294). Eleven of these samples were found to be adulterated as containing cotton seed oil without declaration of the fact. Ample time has been given for manufacturers and importers to make themselves acquainted with the regulations which govern the sale of Salad Oil; and it is unsatisfactory to record forty-three (43) samples of the present collection, as adulterated, under the Act. In addition to this number, thirty-five (35) samples contain the word *coton* in very small type on the label. Section 24 of the Act requires that mixtures should be labelled *in conspicuous characters,* and it is certain that this requirement is not met in these cases. I have, for the present, judged these samples as *doubtful*; but it is questionable whether or not I am justified in thus describing them. Most of these samples are labelled "Huile Douce", equivalent to "Sweet Oil", which is identified with Olive Oil by the Order in Council of the 28th of March, 1912.

Adulteration, consists in selling as Salad Oil an article which consists of, or which contains, cotton seed oil, without notification thereof. This violates the requirements of the Order in Council quoted above; and constitutes adulteration under the terms of section 3 of the Adulteration Act, which reads as follows:—

"Food shall be deemed to be adulterated within the meaning of the Act:—
"(*d*) if it is an imitation of, or is sold under the name of another article;

"(*g*) if its strength or purity falls below the standard, or its constituents are "present in quantity not within the limits of variability fixed by the Governor in "Council, as hereinafter provided."

The subjoined synopsis presents the results of the present inspection:

Meet Legal Requirements:	
as being Olive Oil	67 samples.
as declaring cotton seed oil	14 "
Doubtful, as containing the word "coton" in small type	35 "
Adulterated as containing cotton seed oil without declaration	43 "
Total	159 samples

I would respectfully recommend publication of this report as Bulletin No. 328

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF NOVA SCOTIA—				
1915.							
Aug. 11	Salad Oil...	69816	R. M. Sutherland, New Glasgow.	3 bots.	1·50	France Conserves Co., Paris, France.	R. McGregor & Sons, New Glasgow.
" 13	" ...	69817	James McArthur	3 "	1·20	E. & A. Jonas, Hanart Anseri, Nordet, Bruxelles.	Henri Jonas, Montreal.
" 13	" ...	69818	C. Grant, New Glasgow..	3 "	1·35	H. J. Heinz, Seville, Spain.	Unknown .... .
			DISTRICT OF CAPE BRETON—				
July 20	Salad Oil...	63826	Earl S. Auld, Sydney....	3 bots	1·11	Antoine Guiat, France.	....
			DISTRICT OF PRINCE EDWARD ISLAND—				
July 16	Salad Oil..	60313	J. G. Passmore, Charlottetown.	3 bots.	90	F. B. & A. Artand Freres, Marseilles.	Carvell Bros., Charlottetown.
" 24	" ...	60314	Mathew & McLean, Ltd., Souris.	3 "	75	Lazenby's, London, Eng.	... .
" 24	" ...	60315	" " ..	3 "	50	Frasier Thornton & Co., Cookshire, P.Q.	.....
			DISTRICT OF NEW BRUNSWICK—				
July 14	Salad Oil...	66101	W. A. Simonds, St. John.	3 bots.	90	Crosse & Blackwell, London, Eng.	....
" 16	" ...	66102	McBeath's Grocery, St. John.	3 "	1·05	A. Gaillard & Fils, Marseilles, France.	....
" 19	" ...	66103	Baird & Peters, St. John.	3 "	90	Lazenby's, London, Eng.	....
" 20	" ...	66104	McPherson Bros., St. John.	3 "	1·05	E. & A. Jonas, Hanart, Brussels.	....
" 20	" ...	66105	W. A. Porter, St. John ..	3 "	1·05	Barton Guestier, Bordeaux, France.	....
" 21	" ...	66106	G. E. Barbour & Co., Ltd., St. John.	3 "	66	.....	A. Gaillard & Fils, Marseilles, France.
" 21	" ...	66107	Puddington, Wetmore, Morrison, Ltd ,St. John.	3 "	60	Boy Piere & Fils, Soton, France.	C. A. Munro, agent, St. John.
Aug. 11	" ...	66108	A. V. Cheechi, St. Stephen.	3 "	75	P. Pastene & Co., Montreal.	....
" 17	" ...	66109	E. G. Hoben, Fredericton.	3 "	75	E. Loubon, Nice....	....
" 26	" ...	66110	G. A. Robertson, Moncton.	3 "	84	Crosse & Blackwell, London, Eng.	....

SESSIONAL PAPER No. 14

SALAD OIL.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive In at 15·5° C.	Iodine Number.	Nitric Acid Colour Test.	Halphen Colour Test.	Specific Gravity at 15·5°.		
W. A. PETIPAS, TEMPORARY INSPECTOR.							
	p. c.	p. c.					
	1·4697		Light brown.		0·9168	69816	Olive Oil. Meets legal requirements.
	1·4698		"		0·9175	69817	" "
	1·4696		Green		0·9163	69818	" "
E. T. McKEEN, INSPECTOR.							
	1·4714	91·3	Brown	Red	0·9179	63826	Adulterated under Sec. 3 (d) and (g), and Sec. 37.
WM. A. WEEKS, INSPECTOR.							
	1·4702		Green		0·9163	66313	Olive Oil. Meets legal requirements.
	1·4700		"		0·9160	66314	" "
	1·4734	109·9	Brown	Red	0·9222	66315	Cotton seed oil declared. Meets legal requirements.
JOHN C. FERGUSON, INSPECTOR.							
	1·4699		Green		0·9159	66101	Olive Oil. Meets legal requirements.
	1·4701	88·8	Brown		0·9166	66102	" "
	1·4702		Green		0·9163	66103	" "
	1·4702		"		0·9163	66104	" "
	1·4699		"		0·9158	66105	" "
Imported in bulk and bottled by vendor	1·4701	81·2	Brown		0·9168	66106	" "
Bottled by vendor	1·4701		Green		0·9171	66107	" "
	1·4700		"		0·9157	66108	" "
	1·4729	106·5	Brown	Red	0·9232	66109	Adulterated under Sec. 3 (d) and (g), and Sec. 37.
	1·4702		Green		0·9158	66110	Olive Oil. Meets legal requirements.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF QUEBEC PROVINCE—	
1915.							
July 6	Huile a Salade.	3601	A. Audet, Ste. Claire....	3 bots.	30	.. . .	Ed. Couture, Levis.
" 7	"	3605	Dorchester Lumber Co...	3 "	27	... .	Standard Imports, Ltd., Montreal.
" 8	"	3608	D. Towel, St. Leon.....	3 "	30	....	Dorchester Lumber Co.
" 9	"	3609	A. H. Hilaire, St. Anges Beauce.	3 "	25	....	Livernois, Que..
" 12	"	3612	J. L. Audet, St. Edward.	3 "	25	.....	Dorchester Lumber Co.
" 13	"	3614	J. A, Cloutier, St. Odilon.	3 "	30	....	A. B. Dupuis, Quebec.
" 14	"	3618	P. C. M. Dechine, St. Germain.	3 "	25	.. ..	Carrier & Fils, Levis.
" 16	"	3622	P. K. Prevots, Ste. Rose..	3 "	30	....	Dr. Morin, Quebec.
" 17	"	3628	Ganipe, Ste. Prospere....	3 "	30	....	Carrier & Fils Levis.
" 27	"	3635	T. Dalblain, Ste. Marie...	3 "	25	.. . .	Dr. Morin, Quebec.
" 28	"	3636	J. E. Gagne, Scotts	3 "	30	... .	" "
" 20	Salad Oil..	3586	Michel Lacroix, St. Raphael.	1 chop	50	.....	The Besser Oil Co.
" 22	Huile Table.	3597	Geo. Roy, St. Michel.....	3 bots.	75	Roy Pere & Fils, Salon France.	.....
" 22	"	4405	J. A. Lemieux, St. Michel	3 "	90	Beaumarchand Brand, Nice, France.	.....
" 22	"	4415	Gervais Carrier, St. Gervais.	1 chop	95	....	W. Brunet & Cie.
" 22	"	4419	Alphonse Audet, St. Lazare.	3 bots.	75	Tussier Freres, Province France.	....
" 12	Huile a manger.	290	Pierre Simard, St. Jerome	3 "	150	Barton & Guestier, Bordeaux.	.....
" 12	"	291	Chas. Elie Laflamme, St. Jerome.	3 "	60	... ...	L. Chaput, Fils, & Cie.
" 19	"	302	Damien Hetu, Ste. Agathe des Monts.	3 "	75	....	H. Ely.....
" 19	"	303	L. W. Brissette.....	3 "	75	Talbot Frere.....	....
" 19	Huile d' Olive.	315	H. Garean, St. Jaustin Station.	3 "	30	. .....	Hudon & Orsali.
" 19	"	320	F. X. Asselin, St. Faustin	3 "	45	....	" "
Sept. 14	Huile a manger.	323	E.St. Maurice, St. Eustache C., des Deux Montagnes	3 "	30	....	.....
" 14	"	327	Belair & Paquette, St. Eustache Co., des Deux Montagnes.	3 "	75	H. J. Heinz, Pittsburg.	....
" 14	"	329	E. H. Champagne, St. Eustache Co., des Deux Montagnes.	3 "	54	Crosse & Blackwell..	..... .
July 16	Huile a Salade.	2772	Georges Roy, Berthier...	3 bots.	45	E. Lonbon, Nice....	....
" 21	" ..	2787	F. B. C. Toudreau, Montmagny.	3 "	30	....	J. B. Reneaud, Quebec.
" 28	" ..	2796	Nap. Fournier, St. Paul, Montmagny.	3 "	30	....	Turcot Frere....
" 30	" ..	2800	Emile Dube, Montmagny.	3 "	30	E. Loubon & Cie...	....

SESSIONAL PAPER No. 14

SA LAD OIL.

Inspector's Report. (Is not an expres sion of opinion).	Results of Analysis.					No. of Sample.	Remarks, and Opinion of the Chief Analyst.
	Refractive Index at 15·5°C.	Iodine Number.	Nitric Acid Colour Test.	Halphen Colour Test.	Specific Gravity at 15·5°.		
J. E. AUDET, O. BROCHU, N. CADIEUX, T. GENDREAU, TEMPORARY INSPECTORS							
	p. c.	p. c.					
	1·4738	.....	Brown....	Red	.....	3601	Cotton seed oil declared in small type. Doubtful.
	1·4738	.....	" ...	"	.....	3605	Cotton seed oil declared. Meets legal requirements
	1·4738	.....	"	"	.....	3608	" "
	1·4738	.....	"	"	.....	3609	Cotton seed oil declared in small type. Doubtful.
	1·4740	.....	"	" ..	.....	3612	Cotton seed oil declared. Meets legal requirements
	1·4740	.....	" ...	"	.....	3614	Cotton seed oil declared in small type. Doubtful.
	1·4738	.....	" ...	"	.....	3618	"
	1·4738	.....	" ...	"	.....	3622	"
	1·4738	.....	"	" .,.	.....	3628	" "
	1·4738	.....	"	" ...	.....	3635	" "
	1·4740	.....	" .	" ...	.....	3636	" "
	1·4737	107	"	'	.....	3586	Adulturated under sec. 3, (d) and (g), and sec. 37.
	1·4707	.....	Straw Yellow.	.....	.....	3597	Olive Oil. Meets legal requirements.
	1·4703	.....	Green .	....	.....	4405	" "
	1·4706	.....	" ..	.....	.....	4415	"
	1·4708	.....	" ..	... ..	.....	4419	"
	1·4706	.....	"	.. ...	.....	280	"
	1·4698	.....	Straw Yellow.	...	.....	241	
	1·4709	.....	"	.	.....	302	"
	1·4708	....	"	...	.....	303	"
	1·4773	....	Brown.	Red	.....	315	Cotton seed oil declared in small type. Doubtful.
	1·4750	..	"	"	.....	320	
	1·4738	109	"	"	.....	323	Adulterated under sec. 3, (d) and (g), and sec. 37.
	1·4698	.....	Green	...	.....	327	Olive Oil. Meets legal requirements
	1·4703	.....	" ..	...	.....	328	
Coton	1·4738	.....	Brown.	Red	.....	2712	Cotton seed oil declared in small type. Doubtful.
	1·4738	.....	.	"	.....	2787	
	1·4738	.....	.	"	.....	2790	
Coton	1·4703	.....	"	...	.....	2 [illegible]	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF THREE RIVERS.—							
1915.							
July 9	Salad Oil...	69134	Monahan Bros., St. Lin..	3 bots.	30	....	Chaput & Son, Montreal.
" 12	" ...	69135	Armand Amirault, L'Epiphanie.	3 "	30	Chem. Co., Hervey, St. Basile du Portf.	....
" 26	" ..	69165	Alphonse Goulet, St. Thomas.	3 "	30	... .	Jos. Desfresne, Joliette.
" 27	" ..	69166	Giroux & Bellefeuille, Three Rivers.	3 "	75	St. Etienne Boulli, France.	Laporte Martin, Montreal.
" 28	" ...	69169	O. Carignan Cie, Three Rivers.	3 "	90	Barton Guestier, France.	"
" 31	" ...	69174	Joseph Racette, L'Epiphanie.	3 "	30	E. Loubon Cie, Nice.	....
" 31	" ...	69175	Anna Laviolette, L'Epiphanie.	3 "	30	" " ..	"
Aug. 2	" ...	69177	Edmond Bourgre, L'Epiphanie.	3 "	30	" " ..	Jos. Desfresne, Joliette.
" 3	" ...	69178	E. Laurion, L'Epiphanie.	3 "	30	" " ..	Hudon & Orsali, Montreal.
" 3	" ...	69180	L. Provost, L'Epiphanie..	3 "	30	.....	Hervey Chem. Co., St. Basile, Portneuf.
" 4	" ...	69181	Dame P. A. Guibeault, St. Norbert.	3 "	30	E. Loubon & Cie, Nice.	J. Desfresne & Chevalier, Pouliot, Joliette.
" 15	Huile a Manger.	69182	C. Barrette, Joliette.	3 "	90	Barton Questier, Bordeaux.	Laporte Martin, Montreal.
DISTRICT OF EASTERN TOWNSHIPS.—							
Aug. 11	Salad Oil ..	63070	S. & W. Fortier, Sherbrooke.	3 bots.	38	....	.....
" 12	" ...	63071	D. S. Bachand, Coaticook.	3 "	25	....	....
" 17	" ...	63072	Mercure & Frere, Granby.	3 "	30	Fraser Thornton Co., Coaticook.	.....
" 18	" ...	63073	N. Hamel, Magog.	3 "	30	....	.....
" 18	" ...	63074	A. Provencher, Windsor Mills.	3 "	30	. ...	....
" 24	...	63075	J. O. Gauthier, Drummondville.	3 "	30	Chance & Cie, Montreal.	....

SESSIONAL PAPER No. 14

SALAD OIL.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks, and Opinion of the Chief Analyst.
	Refractive Index at 15·5° C.	Iodine Number.	Nitric Acid Colour Test.	Halphen Colour Test.	Specific Gravity at 15·5°.		
DR. V. P. LAVALLEE, INSPECTOR.							
	p. c.	p. c.					
	1·4740		Brown.	Red		69134	Cotton seed oil declared in small type. Doubtful.
	1·4738	106	"	"		69135	Adulterated, under Sec. 3, (d) & (g) and Sec. 37.
	1·4736		"	"		69165	Adulterated under Sec. 3 (d) & (g). A sticker with words "Quality guaranteed" covers the word *Cotton* on the label.
	1·4707		Green			69166	Olive oil. Meets legal requirements.
	1·4705		"			69169	
	1·4740	105	Brown	Red		69174	Adulterated under Sec. 3 (d) & (g) and Sec. 37.
	1·4738	106	"	"		69175	
	1·4745		"	"		69177	Cotton seed oil declared in small type. Doubtful.
	1·4739		"	"		69178	
	1·4738		"	"		69180	Cotton seed oil declared. Meets legal requirements.
	1·4739		"	"		69181	Cotton seed oil declared in small type. Doubtful.
	1·4702		Green			69182	Olive oil. Meets legal requirements.
J. J. COSTIGAN, ACTING INSPECTOR.							
	1·4738		Brown	Red		69170	Cotton seed oil declared in small type. Doubtful.
	1·4738		"	"		69171	
The word Cotton is stencilled on label, and the words "Pure Salad Oil" printed	1·4738		"	"		69172	
	1·4738		"	"		69173	
	1·4738		"	"		69176	
	1·4740		"	"		69179	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF MONTREAL—							
1915.							
Aug. 26	Salad Oil..	67406	A. Silverstone, 640 St. Catherine st. W. Montreal.	3 bots.	45	....	P. Adelstein....
" 26	" ..	67407	H. Russell, 847 St. Catherine st., W. Montreal.	3 "	45	Cross & Blackwell...	.....
" 26	" ..	67408	W. J. Brown, 888 St. Catherine st., Montreal.	3 "	75	....	W. G. Patrick..
" 26	" ..	67409	Warren Henderson, 1017 St. Catherine st., W. Montreal.	3 "	30	....	Hudon Hebert..
Sept. 1	" ..	67410	Prince Arthur Liquor Grocery, 20 Prince Arthur st., E. Montreal.	3 "	42	....	Joseph Edelberg
" 1	" ..	67411	A. Vallaincourt, 45 Prince Arthur st., E. Montreal	3 "	75	....	Hudon & Orsali.
" 1	" ..	67412	S. Dever, & Son, Prince Arthur & Colonial ave., Montreal.	3 "	85	....	Laporte & Martin.
" 1	" ..	67413	J. Gariepy, 101 Prince Arthur st., E. Montreal.	3 "	30	....	Hudon & Orsali.
" 1	" ..	67414	M. Caplan, 221 Colonial ave., Montreal.	3 "	42	....	Unknown.....
" 1	" ..	67415	N. Goldenzeig, 1024 St. Lawrence Boul, Montreal.	3 "	24	.....	P. Adelstein....
DISTRICT OF VALLEYFIELD—							
July 15	Salad Oil..	51370	Victor Gregoire, St. Johns P.Q.	3 bots.	30	....	Hudon Hebert & Cie Ltd.
" 15	" ..	51371	M. A. Comtois, St. Johns, P.Q.	3 "	30	....	....
" 15	" ..	51372	Joseph Chartier, St. Johns P.Q.	3 "	30	.....	....
" 20	" ..	51373	W. Plante, Valleyfield.	3 "	30	.....	.. . .
" 20	" ..	51374	E. Beauchamp, St. Lambert.	3 "	30	.....	....
" 22	" ..	51375	J. Miron, Hawkesbury.	3 "	30	....	....
Aug. 18	" ..	51376	J. L. Marleau, St. Telesphore, P.Q.	3 "	30	....	L. Chaput Fils & Cie.
" 18	" ..	51377	T. S Montgomery, Dalhousie Station, P.Q.	3 "	30	....	T. W. Chamberlain Co.
" 21	" ..	51378	Gerrier & Caza, St. Aniect, P.Q.	3 "	30	.....	L. Chaput Fils & Cie.
" 21	" ..	51379	E. Dixon, Port Levis, P.Q	3 "	30	.....	Unknown.....

SESSIONAL PAPER No. 14

SALAD OIL.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.					No. of Sample.	Remarks, and opinion of the Chief Analyst.
	Refractive Index at 15·6° C.	Iodine Number.	Nitric Acid Colour Test.	Halphen Colour Test.	Specific Gravity at 15·5°.		
D. J. KEARNEY, INSPECTOR.							
	p. c.	p. c.					
.....	1·4735	.....	Brown. ..	....	.....	67406	Cotton seed oil declared in small type. Doubtful.
....	1·4699	....	Green	....	.....	67407	Olive oil meets. legal requirements.
....	1·4698	.... ..	"	.....	....	67408	" "
... .	1·4731	....	Brown ...	. .....	.....	67409	Cotton seed oil declared in small type. Doubtful.
....	1·4736	.....	" ...	... . .	.....	67410	Cotton seed oil declared. Meets legal requirements.
... .	1·4698	. . ...	Green ..	. . ....	.....	67411	Olive Oil. Meets legal requirements.
.....	1·4706	.....	" ..	.... .	.....	67412	" "
....	1·4771	83·5	Brown ..	Red . .	.	67413	Cotton seed oil declared in small type. Doubtful.
... .	1·4733	.. ....	" ...	... ...	.....	67414	Cotton seed oil declared. Meets legal requirements
....	1·4733	.....	"	... ...	.....	67115	Cotton seed oil declared in small type. Doubtful.
D. J. KEARNEY and J. J. COSTIGAN, ACTING INSPECTORS.							
.....	1·4744	.....	Brown.	Red .		51370	Cotton seed oil declared in small type. Doubtful.
....	1·4738	.....	. .....	"		51371	" "
	1·4738	107	. .	"		51372	Adulterated under Sec. 3, (d and g) and Sec. 27.
	1·4738	.....	.	"		51373	Cotton seed oil declared in small type. Doubtful.
	1·4738	...	"	"		51374	" "
	1·4738	...	"	"		51375	Adulterated under Sec. 3 (d and g), and Sec. 27.
	1·4740	.....	.	"		51376	Cotton seed oil declared in small type. Doubtful.
	1·4740	105	.	.		51377	Adulterated under Sec. 3 (d and g), and Sec. 27.
	1·4740	.	.	"		51378	Cotton seed oil declared in small type. Doubtful.
	1·4740	.	.	"			" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
DISTRICT OF OTTAWA—							
1915.							
July 17	Salad Oil. ..	51686	W. C. Johnston, Brockville.	3 bots.	25	E. Loubon, Nice ..	T. W. Chamberlin & Co., Prescott.
" 17	" ..	51687	Thos. Nappy, Brockville.	3 "	45	" "	H. I. Jonas, Montreal.
" 17	" ..	51688	T. H. Clifford, Brockville.	3 "	30	" "	Gilmour & Co., Brockville.
" 24	" ..	51689	R. Runions, Cornwall....	3 "	30	" "	....
" 31	" ..	51690	E. F. Budd, Pembroke...	3 "	75	Gorman Eckert & Co. Ltd., London, Ont.	Mfrs.. ....
" 12	" ..	63686	R. A. Murdock, Mille Roche.	3 "	30	Standard Imports Co., Montreal.	.....
DISTRICT OF KINGSTON—							
July 29	Salad Oil...	70201	N. C. Polson & Co., Kingston.	3 bots.	30	Vendors.....	.....
Aug. 2	" ..	70202	The Belleville Pharmacy, Belleville.	3 "	45	.....	Lyman, Montreal.
" 2	" ..	70203	D. M. Waters, Belleville.	3 "	50	....	Lyman. .....
" 2	" ..	70204	A. L. Green, Belleville...	3 "	45	.....	Drug Trading Co., Toronto.
" 3	" ..	70205	O. G. Johns, Cobourg....	3 "	45	....	.....
" 3	" ..	70206	W. H. Semples, Cobourg	3 "	25	. .....	Drug Trading Co., Toronto.
" 3	" ..	70207	A. J. Gould, Cobourg....	3 "	40	....	N. C. Polson Co., Kingston.
" 3	" ..	70208	T. Geo. Watson, Port Hope.	3 "	45	....	Nat. Drug Co., Toronto.
" 3	" ..	70209	Nugent Drug Co., Peterborough.	3 "	30	....	Drug Trading Co , Toronto.
" 3	" ..	70210	The Douros Co., Peterborough.	3 "	40	....	Armstrong & Pafford, Toronto.
DISTRICT OF TORONTO—							
Aug. 26	Salad Oil...	69922	J. D. Cassie, 3203 Yonge St., Toronto.	3 bots.	30	The Carter Drug Co., Toronto.	....
" 26	" ..	69923	A. B. Cork, 2611 Yonge St., Toronto.	3 "	75	Berniers & Cie., Malines.	Medland Bros., Toronto.
" 26	" ..	69924	J. J. Coyle, 1867 Yonge St., Toronto.	3 "	30	The Carter Drug Co., Toronto.	... .
" 8	" ..	70094	The Loblaw Stores, 1388 Bathurst St., Toronto.	3 "	30	....	The Carter Drug Co., Toronto.
" 11	" .	70095	J. C. Sharp, 1592 Danforth Ave., Toronto	3 "	30	....	" "

SESSIONAL PAPER No. 14

SALAD OIL

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Refractive Index at 15·5° C.	Iodine Number.	Nitric Acid Colour Test.	Halphen Colour Test.	Specific Gravity at 15·5°.	No. of Sample.	Remarks, and Opinion of the Chief Analyst.
J. A. RICKEY, INSPECTOR.							
		p.c.					
.....	1·4720	112	Brown	Red	.....	51686	Adulterated under sec. 3 (d) and (g) and sec. 37.
.....	1·4738	102	"	"	.....	51687	" "
.....	1·4730	106	"	Deep red..	.....	51688	" "
.....	1·4728	106	"	Red	.....	51689	" "
Labelled Pure Salad Oil.	1·4740	105	"	"	.....	51690	" "
Labelled Huile Douce à Salade Supérieure Loubon, Quality Guaranteed.	1·4738	.....	"	"	.....	63686	Adulterated under sec. 3 (d and (g) A sticker with the words Quality Guaranteed covers the word *Olive* on the label.
JAMES. HOGAN, INSPECTOR.							
.....	1·4694	.....	Green	.....	.....	70201	Olive oil. Meets legal requirements.
.....	1·4728	108	Brown	Red	.....	70202	Adulterated under sec. 3 (d) and (g) and sec. 37.
.....	1·4711	93	Very slight brown.	Slight red	.....	70203	Olive oil. Meets legal requirements.
.....	1·4690	.....	Green	.....	.....	70204	" "
.....	1·4728	106	Brown.	Red.	.....	70205	Adulterated under sec 3 (d) and (g) and sec. 37.
.....	1·4728	105	"	"	.....	70206	" "
.....	1·4738	115	"	"	.....	70207	" "
.....	1·4700	.....	Green	.....	.....	70208	Olive oil. Meets legal requirements.
.....	1·4728	102	Brown.	Red	.....	70209	Adulterated under sec 3 (d) and (g) and sec. 37.
.....	1·4728	105	"	"	.....	70210	"
H. J. DAGER, INSPECTOR.							
Labelled Pure Salad Oil.	1·4740	108	Brown	Red	.....	69822	Adulterated under sec 3 (d) and (g) and sec. 37.
Labelled Extra Choice Acme Imperial Table Oil.	1·4714	.....	Brownish green.	.....	.....	69823	Olive oil. Meets legal requirement.
Labelled Pure Salad Oil.	1·4740	108	Brown	Red	.....	69824	Adulterated under sec 3 (d) and (g) and sec. 37.
"	1·4740	111	"	"	.....	70091	" "
"	1·4740	110	"	"	.....	70092	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF TORONTO—				
1915.							
Aug. 17	Salad Oil...	70096	A. Ferguson, 2070 Queen St., East Toronto.	3 bots.	60	F. Lazenby & Sons, Ltd., London, Eng.	.....
" 20	" ..	70097	Clairo Bros., 968 Queen St., East Toronto.	3 " .	75	....	Unknown .....
" 20	" ...	70098	Mrs. A. Burbidge 894 Queen St., East Toronto.	3 " .	60	L. A. Price, Nice, Bordeaux, France,	.....
" 23	" ...	70099	Mary Watson, 49 Davenport Rd., Toronto.	3 " .	50	Carter Drug Co., Toronto.	....
			DISTRICT OF HAMILTON—				
July 21	Salad Oil...	70001	J. Becker, 101 Geneva Street, St. Catharines.	3 bots.	30	I. X. L. Spice and Coffee Mills, Ltd., London.	.....
" 21	" ...	70002	Bentham & Bradley, St. Paul and Geneva Sts. St. Catharines.	3 " .	30	....	Unknown .....
" 23	" ...	70003	O. L. Kirtner, 10 Centre St., Niagara Falls.	3 " .	30	Gorman Eckert, London.	.....
" 23	" ...	70004	W. H. Martin, 810 Ferry Street, Niagara Falls, South.	3 " .	30	....	Unknown .....
Aug. 5	" ...	70005	Wm. Keating, 337 York Street, Hamilton.	3 " .	30	....	Lumsden Co., Hamilton.
" 5	" . .	70006	C. Thomas, 300 King St., West, Hamilton.	3 "	30	....	I. X. L. Spice & Coffee Mills, London.
			DISTRICT OF WINDSOR—				
Aug. 4	Salad Oil...	54641	R. W. Jones, London ..	3 bots.	30	I. X. L. Spice Co., London.	.....
			DISTRICT OF MANITOBA—				
Sept. 1	Salad Oil...	61380	Winnipeg Drug Co., 407 407 Portage Ave. Winnipeg.	3 bots.	60	....	Nat. Drug Co...
" 2	" . .	61381	Gordon Mitchell Co., Portage Ave. Winnipeg.	3 " .	30	Vendors	.....
" 2	" ...	61382	Percy F. Braun, 462 Portage Ave., Winnipeg.	3 " .	60	Nat. Drug Co., Winnipeg.	....
" 2	" ...	61383	Ultra Druggists, 725 Main St., Winnipeg.	3 " .	100	.. ..	Societe Legeran Nice, France.
" 2	" ...	61384	Norquay Pharmacy, 876 Main St., Winnipeg.	3 " .	45	... .	McClure & Langley Co., Winnipeg.
" 2	" ...	61385	T. Eaton Co., Winnipeg..	3 " .	60	Vendors...	....

SESSIONAL PAPER No. 14

SALAD OIL.

Inspector's Report (Is not an expression opinion).	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive Index at 15·5° C.	Iodine Number.	Nitric Acid Test.	Halphen Test.	Specific Gravity at 20° C.		
Concluded.							
	p.c.	p.c.					
Labelled Finest Luccia Oil.	1·4708	.....	Green	.....	....	70096	Olive Oil. Meets legal requirements.
... .	1·4708	.....	"	... .	.....	70097	" "
Labelled Finest Cream Pure Luccia Olive Oil.	1·4704	....	"	....	... .	70098	" "
Labelled, Pure Salad Oil.	1·4740	108·0	Brown....	Red ...	.....	70099	Adulterated under Sec. 3, (d) and (g) and Sec. 37.
H. J. DAGER, ACTING INSPECTOR.							
Labelled Pure Salad Oil.	1·4728	105·0	Brown....	Red ...	.....	70001	Adulterated under Sec. 3 (d) and (g) and Sec. 37.
Labelled Huile à Salade, Extra, E. Lubon, Nice.	1·4728	105·0	"	"	.....	70002	" "
Labelled Pure Salad Oil.	1·4728	105·0	"	Deep red..	.....	70003	" "
Labelled, Huile à Salade, Extra, E. Lubon, Nice.	1·4728	104·0	"	Red.....	... ..	70004	" "
Labelled R. U. Umberto Braud, Pure Italian Olive Oil.	1·4705	.....	Green ..	.....	...	70005	Olive Oil. Meets legal requirements.
Labelled, Pure Salad Oil.	1·4728	106·0	Brown....	Red	.....	70006	Adulterated under Sec. 3, (d) and (g) and Sec. 37.
JOHN TALBOT, INSPECTOR.							
Labelled, Pure Salad Oil.	1·4730	108·0	Brown ...	Red ...	.....	51641	Adulterated under Sec 3, (d) and (g) and Sec. 37.
J. B. COSGROVE, TEMPORARY INSPECTOR.							
... .	1·4722	112·6	Brown .	Red ...	0·9212	61380	Adulterated under Sec. 3, (d) and (g) and Sec. 37.
.. ..	1·4720	114·4	"	" ...	0·9206	61381	" "
... ...	1·4724	110·0	" ...	" ...	0·9201	61382	" "
... .	1·4680	...	Green ...	Clear	0·9135	61383	Olive Oil. Meets legal requirements.
... ...	1·4682	.....	" ...	... ...	0·9140	61384	" "
... ...	1·4721	.....	Brown ...	Red	0·9200	61385	Cotton Seed Oil. Declared. Meets legal requirements.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF MANITOBA—							
1915.							
Sept. 3	Salad Oil...	61386	J. B. Coyle, 1116 Main St., Winnipeg.	3 bots.	75	Glazer Kohn Co., Chicago.	.....
" 3	" ...	61387	A. J. Kemball. 785 Main St., Winnipeg.	3 "	45	Crosse & Blackwell Co., England.	.....
" 3	" ...	61388	J. W. Wright, 820 St Mathews Ave., Winnipeg.	3 "	75	Pompeian Co., Baltimore.	.....
" 3	" ...	61395	Mineons & Wilson Co., 571 Ellice Ave., Winnipeg.	3 "	75	Gaillard & Fils, Winnipeg.	.....
DISTRICT OF ALBERTA—							
Aug. 11	Salad Oil...	52206	Hudson's Bay Co., Edmonton.	3 bots.	45	Biet Fils, Aine Salon, France.	.....
" 11	" ...	52207	" "	3 "	90	Mfd. in Bordeaux...	.....
" 11	" ...	52208	" "	3 "	90	L. A. Price & Co., Bordeaux, France.	.....
" 13	" ...	52209	A. Urquart & Co., Ltd., Lacombe.	3 "	90	Crosse & Blackwell, London, Eng.	.....
" 16	" .	52210	The John Irwin Co., Ltd., Calgary.	3 "	75	John Vitucci Co....	.....
" 16	" ...	52211	" "	3 "	75	H. J. Heinz Co., Pittsburg, Pa.	.....
" 19	" ...	52212	Geo. I. Wood, Calgary...	3 "	1 05	John Vituccia Co., Italy.	.....
" 19	" ...	52213	Hudson's Bay Co., Calgary	3 "	1 05	Biet Fils, Aine Salon, France.	.....
" 19	" ...	52214	" "	3 "	1 05	L. A. Price & Co., Bordeaux, France.	.....
" 19	" ...	52215	" "	1 "	50	E. Lazenby & Sons, London, Eng.	.....
DISTRICT OF ROCKY MOUNTAINS—							
July 20	Salad Oil...	61840	Trail Grocery Co., Trail..	3 jars	1 60	.....	.....
" 20	" ...	61848	T. Lauriente & Son, Calgary.	3 bots.	1 50	.....	The W. H. Malkin Co., Vasse.
" 20	" ...	61852	Hunter Bros., Rossland..	3 "	90	A. Durand, Bordeaux	.....

SESSIONAL PAPER No. 14

SALAD OIL.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.					No. of Sample.	Remerks and opinion of the Chief Analyst.
	Refractive Index at 15·5° C.	Iodine number.	Nitric Acid Colour Test.	Halphen Colour Test.	Specific Gravity at 20°C.		
Concluded.							
	p. c.	p. c.					
	1·4721	114·7	Brown	Red	0·9200	61386	Cotton Seed Oil declared. Meets legal requirements.
	1·4680	.....	Green	Clear	0·9137	61387	Olive Oil. Meets legal requirements.
	1·4682	.....	Green	Clear	0·9137	61388	Olive Oil. Meets legal requirements.
	1·4681	.....	"	"	0·9141	61395	"

A. W. R. MARKLEY, INSPECTOR.

					(At 15·5°)		
La Perle Brand	1·4711	.....	Green	Yellow	0·9160	52206	Olive Oil. Meets legal requirements
Pinard Brand Olive Oil.	1·4712	.....	"	"	0·9160	52207	"
Virgin Oil Gaston Monale Brand.	1·4709	.....	"	"	0·9158	52208	"
Pure Luccia Oil	1·4710	.....	"	"	0·9155	52209	"
Vittuccia Brand Virgin Olive Oil.	1·4710	.....	"	"	0·9158	52210	"
Heinz Pure Olive Oil. Bot. 158.	1·4711	.....	"	"	0·9159	52211	"
Vituccia Brand Virgin Olive Oil.	1·4710	.....	"	"	0·9158	52212	"
La Perle Pure Olive Oil.	1·4711	.....	"	"	0·9163	52213	"
Gaston Monae Brand	1·4708	.....	"	"	0·9160	52214	"
Elizabeth Lazenby Finest Lucca Oil	1·4708	.....	"	"	0·9161	52215	"

THOS. PARKER, INSPECTOR.

Columbia	1·4749	112·7	Brown	Crimson	0·9230	61846	Adulterated under Sec. 3 (c) and (g), and Sec. 37
	1·4750	110·4	"	Red	0·9216	61848	"
	1·4742	111·2	"	Crimson	0·9230	61852	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF VANCOUVER—
1915.							
July 15	Salad Oil...	55300	Dickie's Grocery Ltd., 660 Hornby St, Vancouver.	3 bots.	60	Holbrook & Co., London, Eng	.....
" 16	" ...	55301	W. H. Edgett Co., Ltd., 118 Hastings St., Vancouver.	3 tins.	45	John Vittucci Co ...	....
" 16	" ...	55302	Woodward Dept. Stores, Vancouver.	3 bots.	75	Kelly, Douglas & Co., Ltd., Vancouver.	....
" 16	" ...	55303	" " .	3 "	75	W. K. Houston & Co., Victoria.	....
" 16	" ...	55304	Hudson's Bay Co., Vancouver.	3 "	60	Biet Fils, Aîné Salon en Provence, France.	.....
" 21	" ...	55305	S. Goranson, 328 Hastings St., Vancouver.	3 "	75	.. ..	Kelly, Douglas & Co., Ltd., Vancouver.
" 22	" ...	55306	Gruchy & Carlaw, 5th Ave. and Granville St., Vancouver	3 "	120	H. J. Heinz Co., Leamington, Ont.	.....
" 23	" ...	55307	Merilees Cash Grocery, 2640 Main St., Vancouver.	3 "	75	McLatehy Mfg. Co, Vancouver.	....
" 23	" ...	55308	" " ..	3 "	75	A. Magnano Co....	.....
" 23	" ...	55309	Calladine's Grocery, 1588 Commercial Drive, Vancouver.	3 "	75	Libby, McNeill & Libby, Toronto.	.....
							DISTRICT OF VICTORIA—
July 21	Salad Oil...	66760	Windsor Grocery Co., 817 Govt. St., Victoria.	3 bots.	90	.....	John Vittucci Co., Vancouver.
" 21	" ...	66764	West End Grocery Co., 1002 Govt. St., Victoria.	3 "	120	A. Gillard & Fils, Marseilles, France.	.....
" 21	" ...	66766	Dixi H. Ross & Co., 1317 Govt. St., Victoria.	3 pts.	75	Armour & Co., Seattle, Wash.	....
" 23	" ...	66769	Erskine & Co., 861 Johnson St., Victoria.	3 bots.	75	L. Noel & Sons, London, Eng.	....
" 23	" ...	66772	Henry W. Driver, 856 Yates St., Victoria.	3 "	75	....	Wilson Bros., Victoria.
" 27	" ...	66774	Linden Grocery, Linden and May Sts., Victoria.	3 "	45	Seattle & Puget Sound Pkg. Co., Seattle.	. . ..
" 28	" ...	66776	Gladstone Grocery, Gladstone and Fernwood, Victoria.	3 "	75	J. C. Kubias, Redland, Cal.	.....
" 28	" ...	66778	H. O Kirkham & Co., Ltd., 1109 Govt. St., Victoria.	3 "	75	Kelly Confection Co., Vancouver.	.....
" 30	" ...	66784	Acton Bros., 1317 Douglas St., Victoria.	3 "	45	W. K. Houston & Co., Victoria.	....
Sept. 20	" ...	66787	H. Schroeder, 300 Menzies St., Victoria.	3 "	45	Seattle & Puget Sound Pkg. Co., Seattle.	....

SESSIONAL PAPER No. 14

SALAD OIL.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive Index at 15.5° C.	Iodine Number.	Nitric Acid Colour Test.	Halphen Colour Test.	Specific Gravity at 15.5° C.		
E. J. MORGAN, INSPECTOR.							
	p. c.	p. c.					
Pure Olive Oil	1·4711	...	Green	Yellow	0·9161	55390	Olive Oil. Meets legal requirements.
Vittucci Brand Virgin Olive Oil.	1·4711	..	"	.....	0·9162	55391	"
Labelled Columbia Brand Salad Oil.	1·4748	111·4	Brown	Red	0·9227	55392	Adulterated under Sec. 3 (d) and (g), and Sec. 37.
Labelled Finest Salad Oil.	1·4748	111·2	"	"	0·9224	55393	"
Warranted Pure	1·4710	.....	Green	Yellow	0·9161	55394	Olive Oil. Meets legal requirements.
Angeline Brand. Guaranteed pure.	1·4712	.....	"	"	0·9162	55395	"
Heinz Pure Olive Oil.	1·4711	.....	"	"	0·9163	55396	"
Labelled Salad Oil. Vendor said it was cotton seed oil.	1·4749	111·7	Brown	Red	0·9222	55397	Adulterated under Sec. 3 (d) and (g), and Sec. 37.
Napoleon Brand Olive Oil.	1·4710	.....	Green	Yellow	0·9160	55398	Olive Oil. Meets legal requirements.
Libby's Pure Olive Oil.	1·4712	.....	"	"	0·9157	55399	"
D. O'SULLIVAN, INSPECTOR.							
Virgin Olive Oil	1·4710	....	Green	Yellow	0·9162	66760	Olive Oil. Meets legal requirements.
Olive Oil	1·4711	....	"	"	0·9162	66764	"
Taken from 50 gallon barrel marked sterilized Cotton Seed Oil.	1·4748	109·9	Brown	Red	0·9218	66766	Cotton Seed Oil declared. Meets legal requirements.
Finest Lucca Oil.	1·4709		Green	Yellow	0·9162	66769	Olive Oil. Meets legal requirements.
Beaumarchand Brand.	1·4711		"	"	0·9163	66772	"
	1·4741	108·7	Brown	Pink	0·9216	66774	Cotton Seed Oil declared. Meets legal requirements.
Bohemian Club Brand.	1·4716		Green	Yellow	0·9170	66776	Olive Oil. Meets legal requirements.
Reception Brand. (Cotton Seed.)	1·4747	110·2	Brown	Red	0·9219	66778	Cotton Seed Oil declared. Meets legal requirements.
Finest Salad Oil. (Cotton Seed.)	1·4748	111·2			0·9220	66784	"
Extra Quality Cotton Seed Oil.	1·4741	108·9	"	Pink	0·9219	66787	"

APPENDIX T.

BULLETIN No. 329—POT AND PEARL BARLEY.

OTTAWA, January 6, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue,

SIR,—

I beg to hand you a report of work done upon one hundred and ninety one samples, purchased as Pot Barley (Orge Mondé) or as Pearl Barley (Orge Perlé) throughout Canada in May, June and July of 1915.

One hundred and eight of these samples are sold as Pot Barley and eighty three as Pearl Barley.

From the Encyclopoedia Britannica, Eleventh Edition, under article "Barley", I find the following:—

> "Barley is now chiefly cultivated for Malting, to prepare spirits and beer, but it is also largely employed in domestic cookery. For the latter purpose, the hard somewhat flinty grains are preferable, and they are prepared by grinding off the outer cuticle, which forms "pot barley". When the attrition is carried further, so that the grain is reduced to small round pellets, it is termed "pearl barley."

Webster's Dictionary (1911) defines Pot Barley as *Hulled Barley;* and Pearl Barley, as "Kernels of barley, ground to the form of small round grains, used in soups, etc."

Church (Foods, etc.) states that 100 pounds of barley yields about 37 pounds of pearl barley.

Wiley (Foods, etc., p. 217) quotes the weight of 100 Kernels of unhulled barley as 4·83 grammes, equivalent to an average of 20·7 Kernels per gramme.

J. A. Dawson has determined the number of Kernels per gramme for thirteen (13) samples of pot barley and for eight (8) samples of pearl barley. This number varies from 27 to 47, average 39 for pot barley, and from 121 to 140, average 136 for pearl barley. Calculating from these figures, the loss in weight of the Kernel in production of pot barley, is 46 per cent; in production of pearl barley is 84·6 per cent. This is a much greater loss of weight than is indicated by Church's figures (63 per cent).

Nineteen (19) samples, which Mr. Dawson regards as mixtures of pot and pearl barley, vary from 42 to 138 Kernels per gramme, averaging 68 Kernels. Nearly all of these samples are sold as pearl barley; and it is probable that they more truly represent the pearl barley of the market, than the eight specially selected by Mr. Dawson, and above referred to. On this assumption, the loss of weight in manufacture of pearl barley would be 69 per cent of the weight of the Barley Kernel in the raw state.

It appears from the literature of the subject, that it is common practice to use sulphur dioxide to whiten pearl barley, and talc or some similar substance, to give

brightness and a pearl-like appearance; moistening with a dilute solution of glucose in order to secure adhesion of the talc is also said to be practised. It has been claimed that these additions are made to prevent the growth of micro-organisms upon the grain; but Pluecker and Flebbe (Z.-Nahr-Genussm. 1914, 28) have demonstrated that this claim has no foundation in fact. The authors conclude that sulphur and talc are employed primarily to bleach the grain, and to secure uniformity of appearance which permits the use of inferior barley in manufacture.

Liverseege and Hawley (Journal of the Society of Chemical Industry, 1915, 203) report upon seventy three (73) samples of English pearl barley, and conclude that there appears to be an increase in the use of mineral facing. The insoluble ash found for sixty seven (67) samples is below 0·22 per cent; while six samples show amounts varying between 0·22 and 0·82 per cent. The authors point out that fifty (50) samples contain less than 0·05 per cent insoluble ash, and that only one of these contained more than 1·10 per cent of total ash. They consider that 0·10 per cent of insoluble ash is a very reasonable allowance, and that samples containing a larger proportion than this should be regarded as adulterated with mineral facing. The total ash should not exceed 1·10 per cent. Talc (soapstone) is the mineral substance generally employed in facing of this sort; and being absolutely indigestible and totally devoid of food value, must be regarded as an adulterant, quite possibly harmful to health.

Rice starch is another article employed in the facing of pearl barley. It cannot be regarded as harmful to health, but undoubtedly must be regarded as an adulterant under Section 3, h, of the Act, being used "to conceal damage, or to make the article appear better or of greater value than it really is." Even the use of barley starch in facing pearl barley must be regarded as adulteration, since the object is mainly to conceal inferiority.

Sixty-four (64) per cent of the samples herein reported as having been sold under the term *Pot Barley*, are found to yield more than 1·10 per cent of total ash; while only twenty-one (21) per cent of those sold as *pearl barley*, yield more than 1·10 per cent of total ash. These figures however, must be interpreted in connection with the above mentioned fact, that many of the samples are doubtfully true to name; in other words, until we are able to distinguish sharply between what is to be regarded as a pot barley, and what as a pearl barley, the commercial nomenclature is too indefinite for purposes of definition.

This report must be regarded mainly as a study of the subject, rather than as furnishing material for departmental action. It may enable us to define Pot Barley and Pearl Barley in such a way as to definitely distinguish these important articles of food; and to establish regulations which shall guide in the interpretation of work done in the future. With exception of eight (8) samples, which are faced with talc, and must be regarded as adulterated under section 3, h, of the Act, I have not felt justified in passing judgment upon the samples now reported.

I would respectfully recommend its publication as Bulletin No. 329.

I have the honour to be,
Sir,
Your Obedient Servant,

A. McGILL,
Chief Analyst

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF NOVA SCOTIA—				
1915.							
June 18	Barley (Pot)..	54031	A. L. Doyle & Co, Halifax.	2 lb..	12	Unknown	J. B. Shaffner & Co., Halifax.
" 23	" " ..	54032	Wm. Moore, Halifax.....	2 " ..	12	"	Unknown .....
" 25	" " ..	54033	Corkum & Ritcey, Ltd., Halifax.	2 " ..	10	Tillsonburg Mills Co., Tillsonburg.	T. H. Taylor & Co., Chatham, Ont.
" 25	" (Pearl).	54034	Wentzell's Ltd., Halifax..	2 " ..	12	John McKay, Bowmanville.	Pyke Bros., Halifax.
" 25	" " ..	54035	John Scott & Co., Halifax.	2 " ..	15	Quaker Oats Co..	Bauld Bros., Halifax.
" 25	" (Pot)..	54036	Knoche & Nicolle, Halifax.	2 " ..	12	Unknown	John Tobin & Co., Halifax.
" 28	" (Pearl).	54037	Allison's Ltd., Halifax...	2 " ..	16	John McKay, Bowmanville.	" "
July 2	" " ..	54038	Turnbull & Co., Digby...	2 " .	24	Unknown	Baird & Peters, St. John.
" 2	" (Pot)..	54039	H. G. Warne, Digby.....	2 " ..	24	"	Unknown .. ...
" 13	" (Pearl).	54040	S. Thomson, Dartmouth..	2 " ..	16	"	R. B. Seeton & Co., Halifax.
			DISTRICT OF NOVA SCOTIA—				
June 3	Barley (Pot)..	65843	James Cavanagh, New Glasgow.	2 lb..	10	Hayme Mill. Co., Bridgeton, Ont.	R. McGregor & Sons, New Glasgow.
" 3	" " ..	65844	2 Barkers Ltd., New Glasgow.	2 " ..	10	McLeod Mill. Co., Stratford, Ont.	Unknown ... .
" 3	" (Pearl).	65845	James McArthur, New Glasgow.	2 " ..	16	Unknown	R. B. Seeton, Halifax.
" 3	" (Pot)..	65846	" " ..	2 " ..	10	Ogilvie M. Co., Montreal.	....
" 4	" " ..	65847	A. J. Roop, New Glasgow.	2 " ..	12	Unknown	R. McGregor & Sons, New Glasgow.
" 4	" " ..	65848	S. M. Lockhart, New Glasgow.	2 " ..	10	"	" "
" 4	" (Pearl).	65849	" " ..	2 " ..	16	"	R. B. Seeton, Halifax.
" 4	" (Pot)..	65850	R. M. Sutherland, New Glasgow.	2 " ..	10	"	R. McGregor & Sons, New Glasgow.
" 4	" " ..	65851	A. A. McDonald, New Glasgow.	2 " ..	10	"	" "
" 4	" " ..	65852	D. J. Murray, New Glasgow.	2 " ..	10	"	R. B. Seeton, Halifax.

SESSIONAL PAPER No. 14

BARLEY (POT AND PEARL.)

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Moisture.	Ash. Total.	Ash. Insoluble.	Facing.	—		
R. J. WAUGH, INSPECTOR.							
	p. c.	p. c.	p. c.				
....	.....	0·99	0·05	.....	....	54031	
....	.....	1·22	0·06	.....	... .	54032	
....	.....	1·23	0·06	.....	.. ..	54033	
....	.....	1·28	0·24	Rice and talc.	....	54034	Faced with rice and talc. Adulterated.
....	...	0·88	0·05	.....	.. ..	54035	
. .....	....	1·36	0·09	.....	.. ..	54036	
....	.....	0·80	0·06	... ...	....	54037	
....	.....	0·98	0·06	Rice.	.. . .	54038	Faced with rice.
....	...	1·38	0·07	.....	....	54039	
....	.....	0·80	0·06	.....	Contains 5% rice grains.	54040	
W. A. PETIPAS, TEMPORARY INSPECTOR.							
. ...	...	1·46	0·09	.....	... .	63843	
...,...	..	1·12	0·07	.....	... ...	63844	
....	.	1·10	0·06	.....	. ...	63845	
. ..	.	0·82	0·05	.....	.. ..	63846	
....	.	1·27	0·09	.....	. ...	63847	
. . ..		1·38	0·07	.....	... .	63848	
.....	.....	0·78	0·04	.....	... ...	63849	
. ...	.....	1·22	0·11	.....	Contains 3% unmilled barley.	63850	
....	...	1·26	0·10	.....	...	63851	
. ...	...	1·43	0·09	.....	... ...	63852	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF PRINCE EDWARD ISLAND—							
1915.							
April 30	Barley (Pot)..	60170	John G. Passmore, Charlottetown.	2 lb..	12	....	J. A. Farquharson, Charlottetown.
May 7	" " ..	60171	E. Toombs, Charlottetown.	2 " ..	12	.....	N. Rattenbury & Co., Charlottetown.
" 7	" (Pearl).	60172	W. W. Walker, Charlottetown.	2 " ..	12	.....	Carvell Bros., Charlottetown.
" 7	" (Pot)..	60173	J. C. Crabbe, St. John...	2 " ..	12	....	Auld Bros., Charlottetown.
" 8	" " ..	60174	Beer & Goff, Charlottetown.	2 " ..	10	....	Carvell Bros., Charlottetown.
DISTRICT OF NEW BRUNSWICK—							
May 10	Barley (Pot)..	66066	2 Barkers Ltd., St. John	1 lb..	6	Haynes M. Co., Brigden, Ont.	.....
" 10	" (Pearl).	66067	Walter Gilbert, St. John.	1 " ..	12	....	R. H. Cole, St. John.
" 17	" (Pot)..	66068	Baird & Peters, St. John	1 " .	4	John McKay, Bowmanville, Ont.	....
" 18	" " ..	66069	G. E. Barbour Co., Ltd., St. John.	1 " ..	5	Can. Cereal Co., Ont.	....
" 18	" (Pearl).	66070	" " ..	1 " .	10	.....	S. Hansen & Son, London, Eng.
" 19	" " ..	66071	Puddington, Wetmore & Morrison, St. John.	1 " ..	6	....	Standard Import Co., Montreal.
" 27	" " ..	66072	B. Beveridge, Andover...	1 " ..	10	.....	John & Scofield, St. John.
June 8	" (Pot)..	66073	W. W. E. Smith, Harvey Station.	1 " ..	7	....	G. E. Barbour, Ltd., St. John.
" 9	" " ..	66074	H. J. Burton & Co., St. Andrews.	1 " ..	5	....	H. W. Cole, Ltd., St. John.
" 17	" " ..	66075	Doyle's Ltd., Moncton...	1 " ..	10	....	Reed Co., Moncton.
DISTRICT OF QUEBEC CITY—							
April 20	Orge (Mondé).	56385	Elz. Turcotte, 74 Desfoses, Quebec.	2 lb..	24	W. Brunette Cie..	Mfr ....
" 20	" " ..	56386	Myrand, Pouliot, Quebec.	2 " ..	30	" ..	" ....
" 20	" " ..	56387	Chs. Riverin, 55 Couronne, Quebec.	2 " ..	30	Jos. Villeneuve, Charlesbourg.	" ....
" 22	" " ..	56388	Arthur Drolet, 714 St. Valier, Quebec.	2 " ..	25	Simmers, Toronto.	" ....
" 22	" " ..	56389	Art. Bedard, 728 St. Valier, Quebec.	2 " ..	20	Jos. Coutière, Lormière.	" . . ..
" 23	" " ..	56390	L. D. Marier, 274 Dorchester, Quebec.	2 " ..	24	Unknown	Unknown .....

SESSIONAL PAPER No. 14

BARLEY (POT AND PEARL.)

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Moisture.	Ash. Total.	Ash. Insoluble.	Facing.	—		
WM. WEEKS, INSPECTOR.							
	p. c.	p. c.	p. c.				
		1·32	0·08			60170	
		1·43	0·11			60171	
		0·96	0·07			60172	
		1 44	0 08			60173	
		1 35	0 09			60174	
J. C. FERGUSON, INSPECTOR.							
		1 18	0 07			60066	
		0·86	0 04			60067	
		1·20	0·05			60068	
		1 18	0·05			60069	
		0 94	0 05			60070	
		1 16	0·07	Rice.		60071	Faced with rice.
		0 92	0 05			60072	
		1 34	0 07			60073	
		1 36	0 06			60074	
		1 19	0 10			60075	
F. X. W. E. BELAND, INSPECTOR							
		2 10	0 06			[illegible]	
		2 04	0 06			[illegible]	
		1 81	0 10			[illegible]	
		1 67	0 05			[illegible]	
		2 01	0·03			[illegible]	
		2 29	0 08			[illegible]	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF QUEBEC CITY—							
1915.							
April 26	Orge (Perlé)..	56391	Jos. A. Grenier, 94 St. Jean, Quebec.	2 lb..	16	Dunlop Bros., Glasgow.	Mfr.....
" 27	" (Mondé).	56392	E. Robitaille, 48 Victoria, Quebec.	2 " ..	20	W. Brunette Cie..	" .....
" 27	" " ..	56393	I. Pepin, 142 Massue, Quebec.	2 " ..	20	Unknown	Unknown .....
" 28	" " ..	56394	Jos. Boiteau, 27 Sutherland, Quebec.	2 " ..	20	"	" .....
DISTRICT OF QUEBEC PROVINCE—							
April 28	Barley (Pearl).	276	Charlemagne Taillon, St. Jerome.	2 lb..	10	Ogilvie's, F. M ...	.....
DISTRICT OF THREE RIVERS—							
May 5	Orge (Perlé)..	67978	A. L. Boucher, Joliette..	2 lb..	25	.....	Lyman Knox, Montreal.
" 5	" " ..	67979	J. O. Daviault, Berthierville.	2 " ..	12	.....	Laporte, Martin. Montreal.
" 7	" " ..	67980	O. Paquette, Berthierville.	2 " ..	12	.....	Hudon, Hebert, Montreal.
" 7	" " ..	67981	A. L. Caisse, Berthierville.	2 " ..	12	.....	" "
" 15	" " ..	67982	J. A. Jubinville, Joliette.	2 " ..	12	.....	Jos. Desfresnes, Joliette.
" 15	" " ..	67983	C. Barrette, Joliette	2 " ..	10	.....	" "
" 15	" " ..	67984	William Perrault	2 " .	12	.....	Chevalier & Magnan, Joliette.
" 19	" " ..	60995	Arcade Brault, Ste. Mélanie.	2 " ..	12	.....	" "
" 31	" " ..	69110	O. Carignan Fils, Three Rivers.	2 " ..	16	.....	Chaput Fils, Montreal.
June 1	" " ..	69112	J. A. Boisvert, Joliette ..	2 " ..	12	.....	Chevalier & Pouliot, Joliette.

SESSIONAL PAPER No. 14

BARLEY (POT AND PEARL.)

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.						No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Moisture.	Ash.		Facing.	—			
		Total.	Insoluble.					

Concluded.

	p. c.	p. c.	p. c.				
		0·86	0·04			56391	
		2·16	0·08			56392	
		1·94	0·14			56393	
		2·44	0·23			56394	Faced with talc. Adulterated.

N. CADIEUX, TEMPORARY INSPECTOR.

						276	

DR. V. P. LAVALLE, INSPECTOR.

		0 92	0 03			67978	
		0 92	0 04			67979	
		1 17	0 07			67980	
						67981	
		1 27	0 07			67982	
		1 09	0 06			67983	
		1 10	0 06			67984	
		0 82	0 04			67985	
		1 01	0 25	Talc		69110	Faced with talc. Adulterated.
		1 18	0 07			69112	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF MONTREAL—				
1915.							
April 30	Barley (Pearl).	67181	J. A. Labelle, 1927 Masson St., Rosemount.	2 lb..	16	....	Unknown .....
" 30	" " .	67182	Jos. Mathieu, 373 Fifth Ave., Rosemount.	2 " ..	11	....	" .....
" 30	" " .	67183	Martin & Fils, 1718 Masson St., Rosemount.	2 " ..	15	....	Hudon, Hebert..
" 30	" " .	67184	N. Trudeau, 248 Dandurand St., Rosemount.	2 " ..	14	.....	Unknown ....
" 30	" (Pot) .	67185	J. E. Normandeau, 2252 Rosemount Boulevard.	2 " ..	15	.....	Hudon & Orsali.
" 30	" " ..	67186	A. Petit, 2424 Rosemount Boulevard.	2 " ..	10	....	Hudon, Hebert..
" 30	" (Pearl).	67187	H. Pepin, Cor. Dandurand and 9th Ave., Rosemount.	2 " ..	14	.....	Unknown .....
" 30	" (Pot)..	67188	Mount Royal Grocery, 1296 Mt. Royal Ave., Montreal.	2 " ..	10	....	P. Adelstein....
" 30	" " ..	67189	M. Desrosiers, 1340 Messier St., Montreal.	2 " .	12	....	Couvrette & Sauriol.
" 30	" " ..	67190	W. Hawthorne, 1155 Mt. Royal Ave. E., Montreal.	2 " ..	12	.....	Unknown .....
			DISTRICT OF EASTERN TOWNSHIPS—				
May 11	Barley (Pot)..	58156	Herbert Fortier, Sherbrooke.	2 lb..	10	....	.....
" 11	" " ..	58157	Bernard & Cie, Sherbrooke.	2 " ..	10	....	.....
" 11	" " ..	58158	Theriault & Leclerc, Sherbrooke.	2 " ..	10	.....	.....
" 11	" " ..	58159	H. Lacroix, Sherbrooke ..	2 " ..	10	....	... .
" 11	" (Pearl).	58160	Geo. F. Moore, Sherbrooke.	2 " ..	10	....	... .
" 11	" " .	58161	J. Audet, Coaticook.....	2 " ..	10	. ...	....
" 12	" "	58162	Woodman & McKee, Coaticook.	2 " ..	14	....	... ...
" 12	" (Pot) .	58163	J. Durand, Coaticook	2 " ..	10	....	..... .
" 12	" (Pearl).	58164	Farley & Burroughs, Coaticook.	2 " ..	10	.. ..	....
" 12	" (Pot)..	58165	Gerin & Boulay, Coaticook.	2 " ..	10	.. ..	....

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BARLEY (POT AND PEARL)

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Moisture.	Ash. Total.	Ash. Insoluble.	Facing.	—		
D. J. KEARNEY, INSPECTOR.							
	p. c.	p. c.	p. c.				
		0·80	0·03			67181	
		0·94	0·04			67182	
		0·87	0·02			67183	
		0·86	0·05			67184	
		1·10	0·05			67185	
						67186	
		0·75	0·02			67187	
		1·34	0·08			67188	
		0·93	0·05			67189	
						67190	
J. J. COSTIGAN, ACTING INSPECTOR.							
		1·08	0·04			58156	
		1·28	0·08			58157	
		1·11	0·07			58158	
		1·25	0·07			58159	
		1·25	0·08			58160	
		1·23	0·07			58161	
		0·75	0·02			58162	
		1·18	0·07			58163	
		1·10	0·07			58164	
		1·30	0·07			58165	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF VALLEYFIELD—							
1915.							
May 19	Barley (Pot)..	58135	George Bougie, Alexandria.	2 lb..	10	....	....
" 19	" " ..	58136	F. J. Dever, Alexandria..	2 " ..	10	....	.....
June 9	" " ..	58137	D. H. Conner, Bedford...	2 " ..	10	. ...	....
" 9	" (Pearl).	58138	Best Bros., Bedford...	2 " ..	15	....	....
" 9	" " .	58139	C. O. Jones, Bedford.....	2 " ..	20	....	....
" 9	" " .	57936	A. Nadeau, Bedford	2 " ..	14	. .. .	.....
" 9	" (Pot)..	57937	J. Dagenais, Farnham...	2 " ..	12	.....	.. ..
" 9	" " ..	57938	J. E. Baillargeon, Farnham.	2 " ..	8	.....	....
" 15	" " ..	40970	Tourrangeau & Champagne, Buckingham.	2 " ..	10	....	....
" 15	" " ..	40971	Lahaie & Son, Buckingham.	2 " ..	10	.....	.. ..
DISTRICT OF OTTAWA—							
April 20	Barley (Pearl).	63603	A. B. Scott & Co., Smith's Falls.	1 lb..	8	.....	Robertson, Nicolle, Smith's Falls.
" 20	" (Pot)..	63607	P. J. Doyle, Perth.	1 " ..	5	.....	Unknown .....
" 30	" " .	63643	L. Mallette, Murray St., Ottawa.	2 " ..	10	.. ..	S. J. Major, Ltd., Ottawa.
May 4	" (Pearl).	63649	J. P. Lapensee, Albert St., Ottawa.	2 " ..	15	... .	Provost & Allard.
" 4	" (Pot).	63650	A. Stein, Albert St., Ottawa.	2 " ..	10	Unknown	Unknown .....
" 5	" (Pearl).	63656	Cherry & Craig, 1184 Wellington St., Ottawa.	1 " ..	8	....	F. J. Castle Co., Ottawa.
" 5	" (Pot)..	63657	H. Richardson, 1087 Wellington St., Ottawa.	2 " ..	14	....	Unknown .....
DISTRICT OF KINGSTON—							
Apr. 29	Barley (Pot)..	68021	James Crawford, Kingston	1 lb .	5	....	Geo. Robertson & Son, Kingston.
" 29	" " ..	68022	J. R. B. Gage, Kingston..	1 " ..	5	.....	Andrew McLean, Kingston.
" 29	" " .	68023	G. D. Valleau, Kingston..	1 " .	5	....	Robertson & Nicolle, Kingston.
4	" " ..	68024	Q. G. Vermilyea, Belleville	1 " ..	5	....	J. Sloan & Co., Belleville.

SESSIONAL PAPER No. 14

BARLEY (POT AND PEARL.)

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Moisture.	Ash. Total.	Ash. Insoluble.	Facing.	—		
J. J. COSTIGAN, ACTING INSPECTOR.							
	p. c.	p. c.	p. c.				
		1·26	0·08			58135	
		1·12	0·04			58136	
		1·24	0·07			58137	
		1·15	0·05			58138	
		0·82	0·01			58139	
		0·97	0·05			57936	
		1·16	0·06			57937	
		1·15	0·07			57938	
		1·33	0·07			40970	
		1·09	0·04			40971	
J. A. RICKEY, INSPECTOR.							
		0·83	0·05			63603	
						63647	
						63643	
		0·85	0·04			63649	
		1·18	0·06			63650	
		0·92	0·04			63656	
		1·07	0·06			63657	
JAMES HOGAN, INSPECTOR.							
		1·39	0·06			68021	
		0·90	0·05			68022	
						68023	
		1·10	0·06			68024	

Date of Collection.	Nature of Sample.	No. Sample.	Name and Address of Vendor	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cost.	Manufacturer.	Furnisher.
DISTRICT OF KINGSTON—							
1915.							
May 4	Barley (Pot)..	68025	F. O. Diamond & Son, Belleville.	1 lb..	5	....	J. Sloan & Co., Belleville
" 4	" " .	68026	Ed. A. Kellaway, Belleville.	1 " ..	5	.....	J. E. Walmsley, Belleville.
" 4	" " ..	68027	H. A. Fairfield, Belleville.	1 " ..	5	....	White Swan Ltd Toronto.
" 4	" " ..	68028	M. C. Nicols, Cobourg....	1 " ..	5	....	Eby Blain. Toronto.
" 4	" " ..	68029	The Thompson MacDonold, Cobourg.	1 " ..	5	.....	Larkins Ince Co. Pererboro.
" 5	" " ..	68030	F. H. Brown, Port Hope.	1 " ..	8	....	MacDonald & Morris Co., Oshawa.
DISTRICT OF TORONTO—							
May 11	Barley (Pearl)	67049	S. M. Warriner, Stouffville.	1 lb..	8	....	Thos. Kinnear & Co., Toronto.
" 11	" (Pot)..	67050	G. W. Resor, Markham..	1 " ..	5	....	Unknown. .....
" 12	" (Pearl)	67051	Dobson & Grosby, Uxbridge.	1 " .	10	.....	" .....
" 12	" (Pot)..	67052	F, C. Collacutt, Port Perry.	1 " .	6	.. ..	" . ..
" 13	" " .	67054	J. G. French, Beaverton .	1 " ..	5	....	Eby Blain, Toronto.
" 14	" " ..	67055	The Georgian Bay Lumber Co., Waubaushene.	1 " .	6	.. ..	Unknown.....
" 15	" " ..	67056	J. A. Gill, Midland.	2 " ..	10	....	" .....
" 19	" (Pearl)	67057	Chas, Godfrey, 371 Spadina Ave., Toronto.	2 " ..	16	.....	Jos. Prager, Toronto.
" 20	" " ..	67058	Girvin & Robinson, 1556 Queen St., West, Toronto.	2 " ..	16	.....	Unknown. . . .
DISTRICT OF HAMILTON—							
April 26	Barley (Pearl).	66978	Burt Bros., Elora.....	2 lb..	10	.....	Unknown.....
" 26	" (Pot) ..	66979	Pritchard & Lunn, Fergus	2 " ..	10	.. ..	Geo. E. Bristol & Co., Hamilton.
" 27	" (Pearl).	66980	W. J. Gilroy, Mount Forrest.	2 " ..	10	....	Unknown .... .
" 28	" (Pot) ..	66981	Stewart & Hucks, Hamstow.	2 " ..	10	.. ..	McLauchlan & Sons, Owen Sound.
" 29	" " ..	66982	F. Weiler, Mildmay. ...	2 " ..	10	....	Stratford Wholesale Grocery, Stratford.
" 29	" " ..	66983	M. J. Campbell, Paisley..	2 " ..	10	....	A. M. Smith & Co., London.

SESSIONAL PAPER No. 14

BARLEY (POT AND PEARL).

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Moisture.	Ash. Total.	Ash. Insoluble.	Facing.			
Concluded.							
	p. c.	p. c.	p. c.				
		1·06	0·05			68025	
		1·04	0·06			68026	
		1·02	0·07			68027	
		0·99	0·05			68028	
		1·04	0·06			68029	
		1·09	0·07			68030	
H. J. DAGER, INSPECTOR.							
		0·85	0·05			67049	
		1·18	0·08			67050	
		0·83	0·05			67051	
		1·03	0·04			67052	
		1·13	0·07			67054	
		1·26	0·08			67055	
		1·98	0·06			67056	
		0·71	0·03			67057	
		0·77	0·03			67058	
H. J. DAGER, ACTING INSPECTOR.							
		1·11	0·06			68978	
						68979	
		1·21	0·07			68980	
		1·04	0·07			68981	
		1·07	0·06			68982	
		1·11	0·06			68983	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF HAMILTON—
1915.							
April 30	Barley (Pearl)	66984	Liebeck & Heinmiller, Chesley.	2 lbs.	10	....	Unknown .....
" 30	" "	66985	D. J. Cunningham, Owen Sound.	2 " ..	20	..... .	W. T. Harris & Co., Ltd., Owen Sound.
May 4	" "	66986	Austen & Grice, Oakville.	2 " ..	20	.....	John Sloane & Co., Toronto.
" 4	" "	66987	Hicks & Bamford, Burlington.	2 " ..	14	.....	Macpherson Glasses & Co., Hamilton.
							DISTRICT OF WINDSOR—
April 21	Barley (Pearl).	54776	M. Willams, Seaforth....	1½ lbs.	8	....	E. Adams & Co., London.
" 21	" (Pot) .	54777	H. Sivins, Seaforth.	1½ " .	8	....	T. B. Escott & Co., London.
" 21	" " ..	54778	Cardno Bros., Seaforth...	1½ " .	8	Archibald M. Co., Woodstock.	... .
" 22	" " ..	54780	Sproat & Sproat, Seaforth	1½ " .	9	"	.....
" 22	" " .	54783	W. R. Smith, Seaforth...	1½ " .	8	Seaforth M. Co., Seaforth.	.....
" 22	" " ..	54785	Geo. C. Sawyer, Mitchell.	1½ " .	8	....	Stratford Wholesale Grocers, Stratford.
" 22	" " ..	54786	Ed. Kern, Mitchell.... .	1½ " .	8	..... .	J. Sloan & Co., Berlin.
" 22	" " ..	54787	W. J. Sevoy, Mitchell....	1½ " .	8	....	Unknown . .
" 23	" " ..	54792	Cappa & Nethercott, St. Marys.	1½ " .	8	.....	Elliott & Marr, London.
							DISTRICT OF MANITOBA—
April 26	Barley (Pearl).	61311	A. S. Coyle, Sargent Ave., Winnipeg.	2 lb..	15	....	....
" 26	" (Pot)..	61312	B. Arnason, Sargent Ave., Winnipeg.	2 " ..	15	.....	....
" 27	" " ..	61313	S. Myers, Ellice St., Winnipeg.	2 " ..	10	....	... .
" 27	" (Pearl).	61314	E. Feir, Ellice St., Winnipeg.	2 " ..	20	....	....
May 10	" (Pot)..	61315	J. A. McDowall, Portage Ave., Winnipeg.	2 " ..	10	....	.....
" 10	" " ..	61316	John M. McMillan, Portage Ave., Winnipeg.	2 " ..	15	....	....
" 10	" " ..	61317	Arney Bros., Portage Ave., Winnipeg.	2 " ..	15	.....	.....
" 10	" (Pearl).	61318	The Wesley Grocery, 547 Portage Ave., Winnipeg.	2 " ..	15	. ...	....
" 11	" " ..	61319	Rockwood Store, 476 Portage Ave., Winnipeg.	1 " ..	20	....	..... .
" 11	" " .	61320	H. E. Weldon & Co., Portage Ave., Winnipeg	2 " .	15	....	..... .

SESSIONAL PAPER No. 14

BARLEY (POT AND PEARL)

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Moisture.	Ash. Total.	Ash. Insoluble.	Facing.	—		
Concluded.							
	p. c.	p. c.	p. c.				
		1·06	0·04			66984	
		1·02	0·03			66985	
		0·77	0·07			66986	
		0·84	0·05			66987	
JOHN TALBOT, INSPECTOR.							
						54776	
		1·87	0·07		Contains 8 rice grains	54777	
		1·13	0·05			54778	
		1·45	0·08			54780	
						54783	
		1·00	0·06			54785	
		1·03	0·06			54786	
		1·00	0·07			54787	
		1·01	0·04			54792	
A. C. LARIVIÈRE, INSPECTOR.							
		0·79	0·03			61311	
		0·88	0·05			61312	
		1·49	0·09			61313	
		0·90	0·04			61314	
	10·3	1·48	0·12			61315	
	10·7	1·14	0·08			61316	
	10·8	0·92	0·02			61317	
	10·5	1·01	0·04			61318	
	10·8	0·58	0·02			61319	
	10·6	0·80	0·02			61320	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF SASKATCHEWAN—				
1915.							
April 26	Barley (Pearl).	66352	N. E. Pletch, Swift Current.	2 lbs.	15	.....	Swift Current Grocery.
" 27	" " ..	66353	M. Moncrieff, Swift Current.	2 " ..	10	.. ..	" "
" 27	" " ..	66354	Bertins, Ltd., Swift Current.	2 " ..	20	....	Codville Co., Moosejaw.
" 28	" (Pot)..	66363	Thomas Bros., Gull Lake.	2 " ..	15	.....	Moose Grocery, Moosejaw.
" 28	" " ..	66364	J. S. Tweed, Gull Lake..	2 " ..	15	....	Codville Co., Moosejaw.
" 29	" " ..	66368	Chevalier & Pollock, Maple Creek.	2 " ..	15	... .	Medicine Hat Grocery Co.
" 29	" " ..	66369	Cooil Bros., Maple Creek.	2 " ..	15	.....	Swift Current Grocery Co.
" 29	" " ..	66370	Dixon Bros., Maple Creek.	2 " ..	15	....	Medicine Hat Grocery Co.
May 5	" " ..	66386	H. T. Baker Co., Lumsden.	2 " ..	10	....	Campbell, Wilson & Strathdee, Regina.
" 5	" " ..	66387	Balfour Bros., Lumsden..	2 " .	20	.....	Unknown . .
			DISTRICT OF ALBERTA—				
April 30	Barley (Pearl).	52130	Hallair & Aldridge, Edmonton.	2 lbs.	20	Campbell, Wilson & Horne, Edmonton.	....
" 30	" "	52131	Johnstone Walker, Ltd.. Edmonton.	2 " ..	20	Brackman Ker, Edmonton.	....
" 30	" (Pot) .	52132	" " ..	2 " ..	15	"	... .
May 18	" "	52133	Hudson's Bay Co., Calgary.	2 " ..	8	Brackman Ker, Calgary.	....
" 18	" (Pearl).	52134	" " ..	2 " ..	16	" ..	....
June 16	" "	52135	Spencer Todd, Ltd., Medicine Hat.	2 " ..	20	... .	Med. Hat Grocery.
" 16	" "	52136	Taylor Bros., Medicine Hat.	2 " ..	20	... .	"
" 16	" (Pot)..	52137	" " ..	2 " ..	16	....	"
" 17	" "	52138	Geo. Kerr, Lethbridge...	2 " ..	20	Brackman Ker, Calgary.	....
" 17	" (Pearl).	52139	" " ..	2 " ..	20	"	.....

SESSIONAL PAPER No. 14

BARLEY (POT AND PEARL).

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Moisture.	Ash. Total.	Ash. Insoluble.	Facing.			
L. H. HALL, INSPECTOR.							
	p. c.	p. c.	p. c.				
		0·88	0·05			66352	
		0·92	0·05			66353	
		0 74	0·02			66354	
		1·04	0·05			66363	
						66364	
		1·30	0·08			66368	
		1·19	0·07			66369	
		0·92	0·06			66370	
		0 90	0·06			66386	
		1·22	0 08			66387	
A. W. R. MARKLEY, INSPECTOR.							
	11 85	1 20	0 02			52130	
	15 31	1 04	0·02			52131	
	15 28	1 16	0 04			52132	
	15·13	0 97	0 02			52133	
	15 14	1 09	0·03			52134	
	15 57	1 04	0 03			52135	
	15 06	0 80	0 04			52136	
	15 03	1 48	0 09		Contains pieces of straw	52137	
	15 00	1 26	0 06			52138	
	15 06	0 82	0 03			52139	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF ROCKY MOUNTAINS—							
1915.							
April 26	Barley (Pearl).	61799	Co-op. Italiana Assn. Trail.	2 lbs.	20	.....	Kelly Douglas & Co., Vanc.
" 26	" (Pot)..	61800	City Grocery, Trail	2 " ..	20	.....	"
" 26	" (Pearl).	61807	Trail Grocery, Trail....	2 " ..	20	Brackman Ker Co., Victoria.	.....
May 20	" (Pot)..	61814	Ira R. Manning, Cranbrook.	2 " ..	15	.....	West. Can. F. M., Calgary.
" 20	" (Pearl).	61815	" " ..	2 " ..	20	.....	"
" 20	" "	61816	J. Manning, Cranbrook..	2 " ..	15	.....	W. H. Malkin & Co., Vanc.
" 20	" (Pot)..	61822	Sure Grocery Co., Cranbrook.	2 " ..	15	.....	Cranbrook Jobbers, Ltd.
June 10	" (Pearl).	61828	A. Hobson, Revelstoke...	2 " ..	20	West. Can. F. M., Winnipeg.	.....
" 10	" (Pot)..	61833	G. W. Bell, Revelstoke...	2 " ..	20	.....	W. H. Malkin Co., Vanc.
" 10	" (Pearl).	61834	L. C. Masson, Revelstoke.	2 " ..	20	.....	"
DISTRICT OF VANCOUVER—							
May 22	Barley (Pearl)	55256	J. Lowenthal, 2243 Main St., Vancouver.	2 lbs.	20	Kelly, Douglas & Co., Vancouver.	.....
" 22	" "	55257	Barker & Miller, 233 Main St., Vancouver.	3 " ..	20	" ..	.....
" 22	" (Pot)	55258	Mt. Pleasant Grocery, 2425 Main St., Vancouv.	2 " ..	20	Unknown	....
" 22	" "	55259	W. H. Parsons, 2539 Main St., Vancouver.	2 " ..	20	" ..	.....
" 22	" (Pearl)	55260	Efford Bros., 246 Broadway E., Vancouver.	2 " .	15	W. N. Malkin Co., Vancouver.	....
" 22	" "	55261	A. G. Page, 3024 Westminster Rd., Vancouver	2 " ..	20	Kelly, Douglas & Co,. Vancouver.	....
" 22	" "	55262	Cochrane & Elliott, 657 15th Ave., Vancouver.	2 " ..	20	Leeson, Dickie, Gross&Co., Vanc.	....
" 22	" "	55263	G. W. Bennett, 761 Kingsway, Vancouver.	2 " .	20	A. Macdonald & Co., Vancouver.	.....
" 25	" (Pot)	55264	T. F. McDowell, 938 Granville St., Vancouver.	2 " ..	20	Kelly, Douglas & Co., Vancouver	....
" 26	" "	55265	J. P. Sinclair, 2954 Commercial Drive, Vanc.	2 " ..	15	Unknown.....	....

SESSIONAL PAPER No. 14

BARLEY (POT AND PEARL.)

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Moisture.	Ash. Total.	Ash. Insoluble.	Facing.	—		
THOS. PARKER, INSPECTOR.							
	p. c.	p. c.	p. c.				
.. ..	12·95	1·10	0·28	.....	Microscope shown mineral matter.	61799	Faced with talc. Adulterated.
....	13·85	1·25	0·05	.....	.. . .	61800	
....	14·12	1·20	0·03	.....	....	61807	
... .	14·29	0·75	0·02	.....	....	61814	
... .	13·96	0·88	0·02	. .....	....	61815	
....	13·84	0·77	0·02	.....	....	61816	
....	13·78	0·93	0·03	.....	. .....	61822	
.. ..	13·96	0·84	0·03	.....	....	61828	
....	13·66	0·80	0·02	.....	....	61833	
....	13·58	0·80	0·01	.....	.....	61834	
E. J. MORGAN, INSPECTOR.							
. .....	13·51	1·03	0·20	.....	Microscope shows mineral matter.	55256	Faced with talc. Adulterated.
.. ..	13·94	1·25	0·35	.....	" " .	55257	
....	14·60	1·01	0·11	.....	... .	55258	
.. ..	15·07	0·96	0·03	.....	.. .. ..	55259	
....	14·36	0·84	0·01	..	.....	55260	
... .	14·21	1·07	0·06	.....	. .....	55261	
....	14·51	1·01	0·02	.....	....	55262	
....	13·80	1·09	0·26	.....	Microscope shows mineral matter.	55263	Faced with talc. Adulterated.
....	14·08	0·86	0·02	. . .	.....	55264	
....	13·79	1·48	0·63	.....	Microscope shows mineral matter.	55265	Faced with talc. Adulterated.

BULLETIN No. 329—

Date of Collection.	Nature of Sample,	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF VICTORIA—				
1915.							
May 27	Barley (Pearl)	66713	Windsor Grocery Co., 817 Govt. St., Victoria.	2 lbs	20	Brackman Ker, Victoria.	....
" 28	" (Pot)	66715	D. H. Ross & Co., 1317 Govt. St., Victoria.	2 " ..	20	.. ..	Wilson Bros., Victoria.
" 31	" "	66719	West End Grocery, 1002 Govt. St., Victoria.	2 " ..	20	.....	R. P. Rithet Co., Victoria.
June 1	" (Pearl)	66720	Copas & Young, 631 Fort St., Victoria.	2 " ..	20	Brackman Ker, Victoria.	....
" 8	" "	66721	Acton Bros., 1317 Douglas St., Victoria.	2 " ..	20	" ..	....
" 8	" "	66725	Erskine & Co., 861 Johnson St., Victoria.	2 " ..	20	" ..	....
" 9	" "	66726	H. O. Kirkham Co., 741 Fort St., Victoria.	2 " ..	15	" ..	....
" 9	" "	66731	Henry W. Driver, 85[illegible] Yates St., Victoria.	2 " ..	20	....	A. McDonald, Vancouver.
" 10	" (Pot)	66733	Fairfield Grocery, 259 Cook St., Victoria.	2 " ..	20	Brackman Ker, Victoria.	....
" 10	" (Pearl)	66734	The Cook St. Grocery, 1023 Cook St., Victoria.	2 " ..	15	....	R. P. Rithet & Co., Victoria..

SESSIONAL PAPER No. 14

BARLEY (POT AND PEARL).

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Moisture.	Ash, Total.	Ash, Insoluble.	Facing.	—		
D. O'SULLIVAN, INSPECTOR.							
	p. c.	p. c.	p. c.				
	13·56	0 77	0·02			66713	
	13 73	0·89	0 02			66717	
	13 70	1 12	0 01			66719	
	13 39	1 03	0 06			66720	
	13 75	1·07	0·01			66721	
	13 85	1·12	0 02			66725	
	13 68	0 98	0 04			66729	
	13 33	0·80	0 01			66731	
	13 78	1 13	0 02			66733	
	13 66	0 91	0 02			67734	

APPENDIX U.

BULLETIN No. 330—BREAKFAST FOODS.

OTTAWA, January 17, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to submit herewith a report upon thirty-three samples of so-called Breakfast Foods. These are, for the most part, cereals which have been to some extent manufactured by heat, moisture, the addition of malt, sugar, etc. The changes brought about by these various treatments are generally very slight; if we regard the nutritive value merely. It may be that a somewhat readier digestibility than would result from the usual preparation of the cereal as a breakfast dish (by boiling with water and a little salt) may be justly claimed for these foods, and it is undeniable that certain of them possess characteristic and more or less well defined flavours which are approved by the palate.

It remains, however, that if we take their cost into consideration, they must be regarded as food luxuries. Dr. E. F. Ladd, Food Commissioner for North Dakota, has made a calculation based upon the results of work done at the North Dakota Agricultural Experiment Station, and demonstrating that, wheat costing $1.80 per bushel, represents a selling price in the form of certain breakfast foods of $27 (Bulletin No. 23, Vol. III, December, 1915. It must, of course, be left to the purchaser to judge whether he is prepared to pay so considerable an increase in price for the slight, and sometimes equivocal, increase in food value represented. The cost of all foods has become so greatly enhanced consequent upon world-wide disturbed conditions, that it is a duty to point out facts like the foregoing, for the guidance of those to whom economy is a matter of concern.

A very full discussion of this subject will be found in Inland Revenue Bulletin No. 84 (1902), in which appear the results of work upon 30 samples of Breakfast Foods, representing 11 different brands. In Bulletin 132 (1907) a further study of 99 samples, representing 18 different brands, will be found. The present report upon 33 samples indicates that a small number of new brands which have been placed on the market since 1907, differ in no essential feature from those previously reported.

A fairly correct notion of the relative nutritive values of these foods (assuming them to be perfectly digested and assimilated) may be obtained from inspection of the numbers in the column headed Calorific value per gram. It will be seen that, as in earlier reports above mentioned, this ranges from about 3,800 to 4,000.

There can be no doubt that oatmeal, preferably flaked or finely ground, and well-cooked by boiling, shows a food value which places it quite at the head of the list.

I beg to suggest publication of this report as Bulletin No. 330.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1915.							
Sept. 9	Cereal Breakfast Food.	64211	Payzant & King, Halifax	1 pkg.	18	Cream of Wheat Co., Minneapalis.	Manufacturers
" 21	" ..	64212	J. L. Wikon & Co. Halifax.	1 "	10	Can. Postum Cereals Co., Windsor.	" ..
" 21	" ..	64213	R. B. Seeton & Co., Halifax.	1 "	10	Shredded Wheat.. Niagara Falls.	" ..
" 22	" ..	64214	John Tobin & Co., Halifax.	1 "	10	Battle Creek Corn Flake Co., London, Ont.	" ..
" 23	" ..	64215	Bauld Bros. Co., Ltd., Halifax.	1 "	12	Quaker Oats Co., Peterboro.	" ..
DISTRICT OF MONTREAL—							
Aug. 25	Breakfast Food.	67401	Jas. McShane, 146 Ottawa St., Montreal.	1 pkg.	28	Quaker Oats Co.....	.. ..
" 25	" ..	67402	G. Brouillet, 105 Colborne St., Montreal.	1 "	10	Cream of Wheat Co.	... .
" 25	" ..	67403	J. Thibault, 98 Murray St., Montreal.	1 "	10	Kelloggs Co.....	.....
" 25	" ..	67404	P. Collins, 87 Ottawa St., Montreal.	1 "	15	The H. O. Mills Co	.....
" 25	" ..	67405	F. J. McCrory, 73 Ottawa St., Montreal.	1 "	13	Can. Shredded Wheat Co.	.....
DISTRICT OF TORONTO—							
Aug. 8	MaltBreakfast Food.	69902	C. Webb, 18 Vaughan Rd., Toronto.	1 pkg.	20	Malted Cereals Co., Burlington, Vt.	.....
" 10	Roman Meal..	69903	M. D. Turner, 683 St. Clair Ave., Toronto.	1 "	25	Roman Meal Co., Toronto.	....
" 12	Hecker's Farina.	69904	The Robt. Simpson Co. Ltd., Queen & Yonge Sts., Toronto.	1 "	13	Hecker Cereal Co., Toronto.	.....
" 13	Gusto	69905	R. E. Willis, 1891 Dundas St. Toronto.	1 "	10	The H. O. Co., Hamilton.	. .....
" 13	Robin Hood Porridge Oats	69906	R. Paget & Co., 1805 Dundas St., Toronto.	1 "	10	Robin Hood Mills, Moose Jaw.	....
DISTRICT OF OTTAWA—							
Dec. 20	Roman Meal..	70611	H. Richardson, Ottawa...	3 pkgs	75	. ...	.. ..
" 21	" ..	70618	J. Bambrick, Ottawa.....	3 "	30	... .	.....
" 22	" ..	70621	H. Racine, Ottawa.	3 "	30	Roman Meal Co., Toronto.	.....

SESSIONAL PAPER No. 14

BREAKFAST FOODS.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.								Microscopical Examination.	Calorific Value per Gram.	No. of Sample.
	Total Proteids N × 6·25.	Moisture.	Petrolic ether extract. (Fat.)	Alcohol Extract. (Sugars, &c.)	Water Extract. (Dextrines.)	Crude Fibre.	Total Ash.	Starch by difference.			
R. J. WAUGH, INSPECTOR.											
Cream of Wheat.	11·56	10·45	0·83	1·37	6·80	0·35	0·71	67·93	.....	3955·4	64211
Port Toasties....	8·00	6·25	0·30	0·75	24·65	0·12	2·77	56·17	.....	3925·8	64212
Shredded Wheat.	10·19	10·20	0·99	1·70	8·25	2·16	1·59	64·92	.....	3837·8	64213
Corn Flakes. ...	7·50	9·60	0·25	2·00	28·30	0·20	1·39	50·76	.....	3870·2	64214
Puffed Rice.....	6·19	9·85	0·25	..	13·15	0·20	0·42	69·94	.....	3878·2	64215
D. J. KEARNEY, INSPECTOR.											
Quaker Oats....	17·5	8·40	3·44	..	8·06	1·25	1·62	59·73	Oat Starch	4199·6	67401
Cream of Wheat.	12·4	10·92	0·89	....	5·55	0·11	0·37	69·76	Wheat Starch..	3977·4	67402
Toasted Corn Flakes.	8·1	9·28	0·27	.....	30·45	0·30	1·36	50·18	Broken Maize Starch.	3·89·1	67403
Toasted Wheat Flakes.	10·5	9·36	1·37	.....	36·10	1·32	2·70	38·65	Granules broken beyond ident fication.	3886·4	67404
Shredded Wheat.	11·0	9·40	1·35	.....	20·83	1·94	2·08	53·40	Wheat Starch..	3838·2	67405
H. J. DAGER, INSPECTOR.											
Compound of Wheat & Malt.	14·7	9·55	1·56	.....	9·80	1·52	1·40	61·47	Broken Wheat Starch.	4005·7	67502
Roman Meal ...	14·8	10·84	2·16	.....	15·87	1·35	2·94	49·04	Appar. Wheat, Rye & Linseed	3800·4	67503
Hecker's Farina	12·0	11·36	0·88	.....	9·58	0·67	0·42	65·19	Wheat Starch..	3920·1	67504
Gusto	9·5	10·40	1·18	.....	33·71	0·91	2·78	41·52	Granules much broken	3829·6	67505
Porridge Oats..	16·6	9·08	4·01	..	8·12	0·75	1·54	59·90	Oat Starch..	4200·6	67506
J. A. RICKEY, INSPECTOR.											
.....	12·5	10·00	2·46	.....	15·70	5·24	3·10	51·00	Appar. Wheat, Rye & Linseed	3787·7	70843
.....	13·7	9·96	2·58	.....	15·40	5·02	2·80	50·54	.....	3811·7	70845
.....	13·7	9·96	2·76	.....	15·80	5·04	2·80	50·04	.....	3806·1	70844

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF LONDON—							
1915.							
July 27	Breakfast Food.	54625	Kerr's Grocery, London..	3 pkgs	39	Quaker Oats Co., Peterboro.	... .
" 27	" ..	54626	B. L. Smith, London.....	"	39	W. H. Kellogg, Battle Creek.	.....
" 27	" ..	54627	R. J. Denny, London. ...	"	45	Can. Postum Co., Windsor.	.....
" 27	" ..	54628	Thos. Shaw, London.....	"	40	Can. Shredded Wheat, Niagara Falls.	....
" 27	" ..	54629	P. Sands, London.....	"	30	Battle Creek Toasted Corn Flakes Co., London, Ont.	.....
DISTRICT OF MANITOBA—							
Aug. 13	Force.....	61351	J. H. Grainger Co., Cor. Westminster & Evanson, Winnipeg.	1 pkg.	15	H. O. Mills Co., Hamilton.	.....
" 14	Corn Flakes..	61352	" " ..	1 "	15	Krinkle Co., Ontario.	.....
" 14	Shredded Wheat.	61353	" " ..	1 "	15	Shredded Wheat Co., Niagara.	.. ..
" 14	Grape Nut....	61356	" " ..	1 "	15	Can. Postum Co., Windsor, Ont.	.....
" 14	Puffed Wheat.	61357	" " ..	1 "	15	Quaker Oats Co., Peterboro.	... .
DISTRICT OF VANCOUVER—							
July 15	Cereal Breakfast Food.	55295	D. McGregor, Cor. Bute and Pender Sts., Vancouver.	1 pkg.	15	Kellogg's Toasted Corn Flakes Co., Battle Creek.	.....
" 15	" ..	55296	" " ..	1 "	15	Can. Shredded Wheat Co., Niagara Falls.	.....
" 15	" ..	55297	W. Conling, 1374 Pender St., Vancouver.	1 "	15	Battle Creek Toasted Corn Flakes Co., London, Ont.	....
" 15	" ..	55298	Frank Wright, 645 Seymour St., Vancouver....	1 "	15	Can. Postum Cereal Co., Windsor.	.....
" 16	" ..	55299	N. Janes Granville Market, Vancouver.	1 "	15	Quaker Oats Co., Chicago.	....

SESSIONAL PAPER No. 14

BREAKFAST FOODS.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								Microscopical Examination.	Calorific Value per Gram	No. of Sample.
	Total Proteids N × 6·25.	Moisture.	Petrolic Extract. (Fat.)	Alcohol Extract. (Sugars, .)	Water Extract. (Dextrines.)	Crude Fibre.	Total	Starch by difference.			
JOHN TALBOT, INSPECTOR.											
Puffed Wheat...	15·0	8·88	1·59	. ..	31·4	2·23	1·67	39·28	Granules much broken.	4001·4	54625
Krumbles. All Wheat.....	12·2	8·58	0·86	....	19·4	1·46	2·47	55·09	Wheat Starch much broken.	3929·2	54626
Grape Nuts.....	12·0	6·74	0·46	.. ..	41·2	0·91	1·64	37·05	Granules much broken.	4037·2	54627
Shredded Wheat	11·1	10·28	1·20	.....	20·4	1·97	1·16	53·44	Wheat Starch...	3907·8	54628
Toasted Corn Flakes.	8·3	9·78	0·24	.....	25·7	0·30	0·98	54·70	Granules broken, Maize.	3888·8	54629
J. B. COSGROVE, TEMPORARY INSPECTOR.											
.. ..	9·10	6·95	1·46	7·74	27·18	2·85	2·40	42·32	....	3916·7	61351
....	8·23	7·40	0·54	8·66	29·52	0·50	0·80	44·80	..... .	4025·9	61352
... .	9·54	8·10	1·54	2·34	9·06	2·26	1·30	65·86	....	3951·0	61353
....	11·29	4·70	0·66	19·14	28·23	1·43	1·60	32·95	....	4100·9	61356
....	14·88	4·80	2·06	6·86	30·73	2·25	1·70	36·72	..... .	4190·5	61357
E. J. MORGAN, INSPECTOR.											
Toasted Wheat Biscuit.	11·97	10·58	0·68	11·50	12·92	2·05	3·01	47·34	Wheat Starch..	3783·4	53295
Shredded Whole Wheat.	9·63	12·04	0·78	2·58	16·61	2·20	1·56	54·60	.. .	3739·9	53296
Toasted Corn Flake.	6·77	13·26	0·14	7·82	20·45	0·35	1·88	49·33	Apparently Maize.	3671·6	53297
Grape Nuts ..	10·20	10·70	0·76	14·56	36·37	1·10	1·94	24·37	Wheat and Barley Starch.	3855·1	53298
Pettijohn's Breakfast Food.	7·29	13·22	1·40	4·02	7·94	1·40	1·48	63·25	Wheat Starch.	3719·1	53299

APPENDIX V.

BULLETIN No. 331—TURPENTINE, AS A PAINT MATERIAL.

OTTAWA, January 8, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue,

SIR,—By an Order in Council of June 6, 1912, Turpentine for uses in the Arts, was defined as follows:—

PRIVY COUNCIL, CANADA.

AT THE GOVERNMENT HOUSE, OTTAWA.

THURSDAY, the 6th day of June, 1912.

PRESENT

HIS ROYAL HIGHNESS THE GOVERNOR GENERAL IN COUNCIL :

His Royal Highness the Governor General in Council, in virtue of the provisions of Section 27 of Chapter 133, Revised Statutes of Canada, 1906, "An Act respecting the Adulteration of Food and other Articles," is pleased to order as follows:—

Turpentine is hereby added to Schedule 4 of the above described Act and the definition thereof shall be as hereinafter set forth:—

STANDARDS FOR TURPENTINE.

I. When turpentine is sold as a drug, for medicinal purposes or to the order of a physician, it shall meet pharmacopoeal requirements as provided by section 7 of the said Act.

II. When turpentine is sold under any other conditions than for purposes of medicine, as above, it shall meet the following requirements:—

(1) It shall be entirely free from mineral oil.

(2) Unless sold as wood turpentine, it shall absorb not less than 340 times its weight of iodine (Hubl Solution and Method). If sold as wood turpentine it shall absorb not less than 240 times its weight of iodine by same method.

(3) The undissolved (unpolymerized) residue on treatment of 10cc with 40cc of a sulphuric acid containing 20 per cent of the fuming acid, shall not exceed 10 per cent by volume of the sample.

(4) The refractive index of this residue shall be not less than 1.4850 at 20° C.

(5) The refractive index of the sample at 20°C. shall lie between 1·4680 and 1·4730.

(6) The specific gravity of the sample at 20°C. shall not be less than 0·860.

(7) The initial boiling point shall not be lower than 150°C. under ordinary atmospheric pressure.

(8) At least 75 per cent by volume shall distil below 160°C.

(9) The residue on evaporation over a steam bath shall not exceed two (2) per cent.

RODOLPHE BOUDREAU,
Clerk of the Privy Council.

No systematic inspection of the article, as thus defined, has been made since the date of the Order in Council as above. An extensive study of the subject was made in 1910, and the results are published in Bulletin No. 211. At that time the only legal standards existent had regard to turpentine (Oil of Turpentine) as a drug; and although many of the samples then reported failed to meet the requirements as given in the British Pharmacopoeia, it was considered inadvisable to apply these very stringent constants to turpentine sold for purposes other than medicinal.

The present inspection embraces careful and, in most cases exhaustive work upon two hundred and twelve (212) samples which were purchased throughout the Dominion in July, August and September of last year; and were specially obtained from dealers in paint materials. They are therefore to be judged by the standards fixed for turpentine supplied for other uses than as a drug. Fifty (50) of these samples fail to meet the above requirements and must be described as adultered under the Act. (*See* note on page 5.)

A very large number of complaints from users of turpentine have been received in recent years; and the results of this inspection indicate that ample ground for complaint exists. The chief adulterant is found to be a petroleum product; but rosin oil is also used for the purpose.

Wood turpentine, that is the product obtained by distillation from résinous woods, as distinguished from that obtained in the regular way from the gum of various species of pine, cannot be regarded as an adulteration, provided that it is properly described when offered for sale. It possesses in a high degree, the desirable properties of true turpentine, but is not, in every respect, its equal for paint purposes. Samples indicating (by their lower iodine number, and other characters) admixture with wood turpentine, have not been judged as adulterated in this report. It must be noted, however, that vendors are not as careful as they should be in properly distinguishing these articles from true (gum) turpentine.

I would respectfully recommend publication of this report as Bulletin No. 331.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

OTTAWA, March 22, 1916.

NOTE.—The term adulteration, as used here, must be understood to mean that the sample does not meet the standards for turpentine fixed by Order in Council of June 6, 1912.

Section 21 of the Adulteration Act, as this appears in the Revised Statutes of 1906, has been introduced into this Act from an older Act of 1894, entitled "An Act in restraint of Fraudulent Sale or Marking."

Section 21, is as follows:—

"No person shall mark, brand or label any article or any package containing any article mentioned in the first column of the fourth schedule to this Act, with the word Pure, Genuine, or any word equivalent thereto, or sell, or offer or expose for sale, any such article or package so marked, branded, stamped or labelled, unless such article or the contents of such package are pure within the meaning of the second column of the said schedule."

It will be noted that, unless the article has been sold as *Pure* or *Genuine,* the penalties imposed by Section 38 (Section 3 of the Act in restraint of Fraudulent Marking) do not apply.

The samples of turpentine herein reported were simply sold as turpentine, and not as pure turpentine or genuine turpentine. It is reasonable to interpret the word turpentine, used simply, as meaning pure or genuine turpentine; but the technical difficulty introduced by the peculiar wording of section 21, makes procedure uncertain, and perhaps unadvisable until such time as an amendment of the Act is secured.

BULLETIN No. 331—TURPENTINE.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF NOVA SCOTIA—R. J. WAUGH, INSPECTOR.								
1915.								
Sept. 28	Turpentine..	64256	Wm. Stairs Son & Morrow, Halifax.	1½ pt.	15	Unknown	Carritte Patterson Co., Halifax.	
" 28	" ..	64257	Wm. Robertson & Son, Halifax..	1½ "	15	Georgia Tur pentine Co...	J. C. Calder, Agent, Halifax.	
" 28	" ..	64258	A. M. Bell & Co., Halifax....	1½ "	15	" Montreal...	Mfr	
" 28	" ..	64259	Jas. Simmonds, Ltd., Halifax ...	1½ "	15	"	J. C. Calder, Agent, Halifax.	
" 28	" ..	64260	Geo. E. Smith & Co., Halifax....	1½ "	15	Unknown	"	
DISTRICT OF NOVA SCOTIA—W. A. PETIPAS, TEMPORARY INSPECTOR.								
Aug. 13	Turpentine..	69841	J. S. Fraser, New Glasgow...	3 pts.	45	Unknown	DeB. Carritte, St. John.	
" 13	" ..	69842	Thompson & Sutherland, New Glasgow.	3 "	38	Imperial Oil Co., Halifax.	Mfr	
" 13	" .	69843	Bent & Cahoon, New Glasgow....	3 "	37	Unknown	DeB. Carritte, St. John.	

DISTRICT OF CAPE BRETON—E. F. McKEEN, INSPECTOR.

July	25	Turpentine	63814	C. P. Moore, Sydney	3	pts.	45	Georgia Turpentine Co., Montreal.		
"	25	"	63815	Thompson Sutherland Co., Sydney.	3	pts.	45	Imperial Oil Co.		

DISTRICT OF PRINCE EDWARD ISLAND—WM. A. WEEKS, INSPECTOR.

July	15	Turpentine	60362	Prowse & Son, Murray Harbour, P.E.I	3	pts.	35		Rogers Hardware Co., Charlottetown.	
"	17	"	60364	S. W. Crabbe, Charlottetown, P.E.I.	3	"	30	Imperial Oil Co., Halifax		
"	17	"	60365	Fennell & Chandler, Charlottetown, P. E.I.	3	"	35		DeB. Carritte, St. John.	
"	19	"	60366	Rogers Hardware Co., Charlottetown, P.E.I.	3	"	35		"	
"	19	"	60367	P. J. Berrigan, Dundee, Lot 31, P.E.I.	3	"	35		Rogers Hardware Co., Charlottetown.	
"	20	"	60368	Russell Con, Morell, P.E.I.	3	"	35	Can. Paint Co., Montreal		
"	20	"	60369	H. H. Con, Morell, P.E.I.	3	"	35		Rogers Hardware Co., Charlottetown.	
"	20	"	60370	Matthaw, McLean, Ltd., Souris, P.E.I.	3	"	35	Unknown		
"	20	"	60371	J. J. Hughes, Co., Ltd., Souris, P.E.I.	3	"	35	A. M. Bell & Co., Halifax		
"	20	"	60372	D. F. Keays, Bayfield, P.E.I	3	"	45		Stern Bros., Ltd., Souris, P.E.I.	

DISTRICT OF NEW BRUNSWICK—JOHN C. FERGUSON, INSPECTOR.

July	15	Turpentine	60151	Nat. Drug & Chem. Co., St. John.	3	pts.	60		Prov. Chem. Fert. Co., St. John.	
Aug.	2	"	60172	Robertson, Foster & Smith, St. John	3	"	40		DeB. Carritte, St. John.	
"	4	"	60175	F. A. Young, St. John	3	"	40		Imperial Oil Co., St. John.	
"	3	"	60176	T. McAvity & Sons, St. John	3	"	40		DeB. Carritte.	
"	4	"	60178	W. H. Thorne & Co., Ltd., St. John.	3	"	45			
"	4	"	60179	H. L. & J. T. McGowan, St. John.	3	"	40		Wood Bros., St. John.	
"	10	"	60197	The DeWolf Hardware Co., St. Stephen.	3	"	45		DeB. Carritte, St. John.	

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DISTRICT OF NEW BRUNSWICK—JOHN C. FERGUSON, INSPECTOR.—*Concluded.*								
1915.								
Aug. 17	Turpentine.	66158	R. Chestnut & Son, Fredericton	3 pts.	45	.....	Apothecary's Hall Co., Waterbury, Conn., U.S.A.	.....
" 24	" ..	66159	Sussex Mercantile Co., Sussex.	3 "	45	.....	Imperial Oil Co., St. John.	.....
" 26	" ..	66160	Sumner & Co., Moncton.	3 "	30	.....	DeB. Carritte, St. John.	.....
DISTRICT OF QUEBEC PROVINCE—J. AUDET, O. BROCHU, N. CADIEUX AND S. GENDREAU, TEMPORARY INSPECTORS.								
July 7	Terebentine.	3603	Dorchester Lumber, Ste. Malachie.	3 pts.	21	Brit. Amer. Oil.....	.....	.....
" 12	" .	3610	J. L. Audet, St. Edward.	3 "	25	Dorchester Lumber, Ste. Malachie.	.....	.....
" 13	" ..	3615	J. A. Cloutier, St. Odilon.	3 "	25	Herman Young, Quebec...	.....	.....
" 16	" ..	3624	P. K. Prevot, Ste. Rose.. ..	3 "	15	"	.....	.....
" 17	" ..	3627	Gariepie, St. Prosper.....	3 "	25	Fratingham, Montreal..	....	.....
" 20	" ..	3584	Antoine Picard, St. Raphael....	1 pt.	20	Herman Young, Quebec...	.....	.....
" 20	" ..	3588	Antoine Labrecque, St. Raphael.	1 "	25	"	.....	.....
" 20	" .	3593	L. A. Roy, St. Valier.....	1 "	25	Jos. Lemieux, Quebec....	.....	.....

"	23	"	4401	Geo. Roy, St. Michel	3 bots.	25	Martin-Senour Co., Montreal.			
"	22	"	4403	J. A. Lemieux, St. Michel	3 "	25	"			
"	21	"	4408	Jos. Labonte, St. Charles	1 pte.	24	W. M. Doyle			
"	22	"	4410	J. B. Lacroix, St. Charles	1 "	30	Sherwin-Williams Co., Ltd.			
"	22	"	4413	J. E. Rouillard, St. Gervais	1 "	30	Imperial Oil			
"	22	"	4416	Arthur Arsensault, St. Gervais	1 "	23	Can. Paint Co., Montreal			
"	23	"	4423	Napoleon Aubin, St. Damien	1 "	32	Dorchester Co.			
"	13	"	299	Alexandre Villeneuve, St. Jérôme	3 Chopines.	60	Georgia Turpentine Co.			
"	15	"	309	Charlesmagne Taillon, St. Jérôme	3 "	50	Sherwin Williams			
"	15	"	311	Adelard Segonin, St. Agathe des Monts.	3 "	50				
"	15	"	313	F. Labrecque, St. Agathe des Monts.	3 "	60	R. C. Jameson			
Sept.	14	"	322	Ernest Lahaie, St. Eustache, comte des Deux Montagnes.	3 "	30	Prudhomme Montreal			
July	15	"	2769	Anselme Provot, Montmagny	1 "	15	Can. Paint Co.			
"	16	"	2771	George Roy, Berthier, Montmagny.	1 "	15		Joseph E. Lemieux, Que.		
"	19	"	2773	Alphonse Letourneau, St. Pierre.	1 "	15				
"	20	"	2777	Joseph Lute, [illegible] I.	1 "	15	Green Tree Co., Montreal			
"	21	"	2783	Jos. Fournier, St. Thomas, Montmagny.	1 "	15		Jos. E. Lemieux, Quebec		
"	21	"	2785	Alphonse Lebarge, Montmagny	1 "	15	Can. Paint Co., Montreal			
"	22	"	2792	Ludger Guillout, N. D. Rosaire, Montreal	1 "	15		Jos. E. Lemieux, Quebec		
"	23	"	2794	G. P. Letourneau St. Paul, Montmagny.	1 "	15		N. Lemieux & Fils, Que.		
"	23	"	2797	G. Blais & Cie, Ltd., Ste. Euphemie, Montmagny.	1 "	15	Sherwin Williams, Montreal			

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DISTRICT OF THREE RIVERS—DR. V. P. LAVALLÉE, INSPECTOR.								
1915.								
July 8	Turpentine..	69124	S. Costello, Joliette..	3 Pts.	35	R. L Jamieson, Montreal..	....	....
" 7	" ..	69125	Edm. Wodon, Joliette.....	3 "	38	Ramsay Sons,'Ltd., Montreal.	... .	....
" 9	" ..	69126	Monahan Bros., St. Lin	3 "	40	Imperial Oil Co.,'Montreal.	....	....
" 9	" ..	69127	Alfred Henri, St. Lin..	3 "	45	Can. Paint Co., Montreal..	....	....
" 10	" ..	69128	R. Charbonneau, St. Esprit.....	3 "	45	" " ..	....	....
" 10	" ..	69129	George Beaudoin, St. Esprit.....	3 "	45	Can. Paint Co., Montreal..	....	....
" 9	" ..	69130	W. Gendreau, St. Roch Achigan.	3 "	40	Couillard Au-guste, Montreal.	....	....
" 12	" ..	69131	L. Provost, L'Ephi- phanie.....	3 "	30	Ramsay's Sons, Montreal..	....	....
" 12	" ..	69132	T. A. Mercier, L'Ephiphanie....	3 "	40	....	L. H. Hebert, Montreal. ...	.....
" 13	" ..	69133	L. Panzé, L'Assomption.....	3 "	60	Can. Paint Co., Montreal..	Bedard & Cie., L'Assomption.	....
Aug. 7	" ..	69184	S. Costello, Joliette.....	3 "	38	R. E. Jamieson, Montreal.	....	....

DISTRICT OF EASTERN TOWNSHIPS—J. J. COSTIGAN, ACTING INSPECTOR.

Aug.	11	Turpentine	6305	W. Bourque, Sherbrooke	3	Pts.	35			Sold as Georgia Turpentine
"	11	"	6306	N. Labrecque, Sherbrooke	3	"	40			
"	11	"	6306	Jos. Lacombe & Fils, Sherbrooke	3	"	40	Brit. Amer. Oil Co., Ltd.		
"	17	"	6306	Phœnix & Girard, Granby	3	"	25			
"	11	"	6306	Coderre & Fils, Inc., Sherbrooke	3	"	45	Standard Oil Corporation		
"	12	"	6306	J. B. Dunne, Cookshire	3	3	40			
"		"	6306	A. Seguin, St. Hyacinthe	3	"	38	Brit. Amer. Oil Co., Ltd.		
"	17	"	6306	Beauregard & Laline, St. Hyacinthe	3	"	38	Can. Paint Co., Ltd.		
"	13	"	6306	J. B. St. Pierre, St. Hyacinthe	3	"	37	Imperial Oil Co.		
"	13	"	6306	Gendron & Lemay, St. Hyacinthe	3	"	45	Can. Paint Co.		

DISTRICT OF MONTREAL—D. J. KEARNEY, INSPECTOR.

Aug.	6	Turpentine	6746	The People's Hardware Co., 152 St. Lawrence Boul., Montreal	3	pts	45	Unknown		
"	8	"	6747	Berger Hardware Co., 126 St. Lawrence Boul., Montreal	3	"	45	Imperial Oil Co.		
"	10	"	6748	A. Ermiller, 1780 St. Lawrence Boul., Montreal	3	"	38	Can. Paint Co.		
"	10	"	6749	O. Rollin & Co., 1324 St. Lawrence Boul., Montreal	3	"	37	Brit. Amer. Oil Co.		
"	10	"	6749	Beauvais Freres, 336 St. Lawrence Boul., Montreal	3	"	45	Imperial Oil Co.		
"	28	"	6749	A. Gendron, 253 St. Paul st. E., Montreal	3	"	30	Georgia Turpentine		
"	28	"	6749	J. O. Denis, 239 St. Paul st. E., Montreal	3	"	30	McArthur Irwin Co.		
"	24	"	6749	Lecuyer & Lalonde, 187 Church ave., Verdun	3	"	40	Mount Royal Colour & Varnish Co.		
"	26	"	6749	The Raymond Hardware, Ltd., 243 Notre Dame st. W., Montreal	3	"	37	Georgia Turpentine Co.		
"	26	"	6749	L. L. Lafleur, Ltd., 366 Notre Dame st. W., Montreal	3	"	37	"		

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				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF VALLEYFIELD—J. J. COSTIGAN, ACTING INSPECTOR.								
1915.								
July 22	Turpentine..	57991	L. P. Beaulne, Hawkesbury.....	3 pts.	35	Can. Paint Co.....	.....	.....
" 22	" ..	57992	J. G. Higginson, Hawkesburyc..	3 "	25	Imperial Oil Co.....	....	. .. .
" 22	" ..	57993	J. O. Phenix, Hawkesbury.....	3 "	45	Can. Paint Co.....	....	....
" 27	" ..	57994	A. Morand, Valleyfield....,....	3 "	45	"	..... .	....
" 27	" ..	57995	V Leger, Valleyfield	3 "	35	.....	....	....
" 27	" ..	57996	Besner & Chasle, Valleyfield.....	3 "	36	....	.....	....
" 27	" ..	57997	N. Langevin, Valleyfield	3 "	35	.....	.....	.. . .
" 27	" ..	57998	A. Lebeuf, Valleyfield	3 "	40	....	.....	....
" 28	" ..	57999	Cote & Cie, St. Johns...	3 "	30	McArthur Irwin. Montreal	....	....
" 28	" ..	58000	C. O. Gervais & Fils, St. Johns..	3 "	35	.....	....	.....

DISTRICT OF OTTAWA—J. A. RICKEY, INSPECTOR.

July	16	Turpentine	51693	E. J. McGarry, Renfrew	3	pts.	35	Ottawa Paint Works, Ottawa.	Manufacturer.	
"	16	"	51694	Devine & Legres, Renfrew	3	"	45	R. C. Jamieson Co., Montreal.	"	
"	16	"	51695	French & Co., Renfrew	3	"	45	Can. Paint Co., Montreal.	"	
"	16	"	51696	The Jennings Co., Renfrew	3	"	40	Can. Oil Co., Toronto	"	
"	17	"	51697	A. G. Dobbie & Co., Brockville	3	"	40	Georgia Turpentine Co., Montreal	"	
"	17	"	51698	B. D. Steacy, Brockville	3	"	45	Can. Paint Co., Montreal	"	
"	31	"	51699	Dunlop & Co., Ltd., Pembroke	3	"	45	E. Fielding & Son, Toronto.	"	
"	16	"	62689	Griffin & Brennan, Arnprior	3	"	37	Ottawa Paint Works, Ottawa.	"	
"	16	"	62690	John S. Moir, Arnprior	3	"	35	Can Paint Co., Montreal	"	
"	15	"	62691	W. J. Muirhead, Carleton Place	3	"	35	Ottawa Paint Works, Ottawa.	"	
"	15	"	62692	Taylor Bros., Carleton Place	3	"	40	Can. Paint Co. Montreal	"	
"	17	"	62693	B. H. Smart, Brockville	3	"	30	Midland, Toronto	"	

DISTRICT OF KINGSTON—JAMES HOGAN, INSPECTOR.

July	28	Turpentine	70250	Savage & Wightman, Kingston	3	pts	18	Sanderson & Percy Co., Toronto.		
"	28	"	70252	Robinson Bros., Kingston	3	"	27	J. H. Morin, Toronto		
"	28	"	70253	A. Cheeseman & Co., Kingston	3	"	15			Mixture of two kinds.
"	28	"	70254	John Laird & Sons, Kingston	3	"	20		Dalton & Son, Kingston	
"	28	"	70255	W. J. Vinen, Kingston	3	"	20		H. W. Marshall, Kingston	
"	28	"	70256	H. W. Marshall, Kingston	3	"	45	Georgia Turpentine Co., Montreal.		
"	28	"	70257	J. B. Bent & Co., Kingston	3	"	35		Dalton & Son, Kingston	
"	28	"	70258	W. A. Mitchell, Kingston	3	"	30		" "	
"	28	"	70259	Lockard & Neal, Kingston	3	"	45	J. A. Casey Co., New York		
"	28	"	70260	McKelvey & Birch, Kingston	3	"	30	Oil & Rawson Co. Savanna, Ga.		

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				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF TORONTO— H. J. DAGER, INSPECTOR.								
1915.								
Aug. 8	Turpentine..	70074	W. A. Stephenson, 28 Vaughan Rd., Toronto.	3 bots.	25	.....	Unknown	.....
" 10	" ..	70075	R. H. Hudson, 1199 St. Clair, Ave., Toronto.	3 "	25	.....	Can. Oils, Ltd., Toronto. ...	...
" 11	" ..	70076	Toms Bros., 1612 Danforth Ave., Toronto.	3 "	25	.....	Ottawa Paint Co., Toronto.	.....
" 13	" ..	70077	Nodon, Hallet & Johnson, 162 Dundas St. W. Toronto.	3 "	30	.....	Reynolds & Co., Toronto.	.....
" 14	" ..	70078	James Hugill, Weston.	3 "	35	Glidden Varnish Co., Toronto.	.....	.....
" 16	" ..	70079	E. W. Chard, 324 College St., Toronto.	3 "	30	Sherwin - Williams Co., Ltd., Toronto.	.....	.....
" 17	" ..	70080	T. H. Boyd, 2252 Queen St. E., Toronto.	3 "	25	.....	Royal Commission, Toronto.	.....
" 17	" ..	70081	C. G. Bailey, 1958 Queen St. E., Toronto.	3 "	30	.....	Imperial Oil Co., Ltd., Toronto.	.....
" 18	" ..	70082	G. H. Wall, 305 Roncesville Ave. Toronto.	3 "	25	Turpentine Producers, Ltd., Toronto.	.....	.....
" 20	" ..	70083	J. W. Peacock, 1026 Queen St. W., Toronto.	3 "	25	"	.....	.....

DISTRICT OF HAMILTON—H. J. DAGER, ACTING INSPECTOR.

July	21	Turpentine	7004	J. Chapman, 285 St. Paul St., St. Catharines.	3 pts	40		Arthur Irwin Co., Montreal.	
"	21	"	7004	W. R. McKenzie & Co., Niagara on the Lake.	3 "	60	Pinchen & Johnson Co., Ltd., Toronto.		
"	22	"	7004	L. I. Hunt & Son, Thorold	3 "	35		Empire Commission Co., Toronto.	
"	25	"	7004	G. H. Clark, 54 Erie Ave., Niagara Falls.	3 bots.	30		Can. Paint Co., Ltd., Toronto.	
"	28	"	7004	McEvers & Henry, 485 Victoria Ave., Niagara Falls.	3 "	35		Unknown	
"	28	"	7004	Pringle & Son, Nelson	3 pts	45		Brit. Amer. Oil Co., Toronto.	
"	28	"	7004	W. P. Gardner & Sons, Bolton	3 bots.	35		Imperial Oil Co., Toronto.	
Aug	3	"	7004	W. E. Anthony, Brampton	3 "	60		Sanderson, Percy Co., Ltd., Toronto.	
"	4	"	7004	J. W. Kennedy, Georgetown	3 "	35		Unknown	
"	5	"	7005	Arcade, Ltd., 45 James St. N., Hamilton	3 "	30		Wood, Valance Co., Ltd., Hamilton.	

DISTRICT OF WINDSOR—JOHN TALBOT, INSPECTOR.

Aug	9	Turpentine	5004	[illegible] & Mitchell, London	3 bots.	20	West, Rosin & Turpentine Co., Detroit.		
"	9	"	5004	Layer Hardware Co.	3 "	25			
"	9	"	5004	[illegible] Steele & Co., London	3 "	25		Howden Hardware Co., London.	
"	10	"	5005	A. Workman, London	3 "	25		Taylor & Lowenstein & Co., Mobile, Alta.	
"	10	"	5005	Edgecombe Bros., London	3 "	20		Howden Hardware Co., London.	
"	10	"	5005	F. E. Jones, London	3 "	10	West, Rosin & Turpentine Co., Detroit.		
"	12	"	5005	Fred N. Kane, Woodstock	3 "	20			
"	12	"	5005	[illegible] N. Stanley, Woodstock	3 "	20		Howden Hardware Co., London.	
"	12	"	5005	Dorchester & Mulcaster, Woodstock	3 "	25		International Varnish Co., Toronto.	
"	13	"	5005	McMurty Hardware, St. Thomas	3 "	12½	West, Rosin & Turpentine Co., Detroit.		
"	13	"	5005	Jackson & Ford, St. Thomas	3 "	30	Sherwin Williams Co., Montreal.		
"	14	"	5005	A. F. Campbell, St. Thomas	3 "	17½		Hobb Hardware Co., London.	

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				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF MANITOBA—J. B. COSGROVE, TEMPORARY INSPECTOR.								
1915.								
Aug. 4	Turpentine..	61325	Walter Johnson, 533 Sherbrooke, Winnipeg.	3 pts.	60	....	Miller-Morse, Winnipeg.....	
" 4	"	61326	Andrews & Sons, Victor St., Winnipeg.	3 "	60	.....	Can. Paint Co., Winnipeg ..	
" 4	"	61327	R. Steiman Hardware Co., 541 Selkirk Ave., Winnipeg	3 "	60	.....	Can. Oil Co., Winnipeg.....	
" 4	"	61329	Tulley & Davey, 1772 Main St., Winnipeg.	3 "	60	.....	.....	
" 5	"	61331	R. Thornton, 262 Tache Ave., Norwood.	3 "	45	.....	Wood, Valance Co., Winnipeg	
" 5	"	61333	Allaire & Blean, 568 Tache Ave., St. Boniface.	3 "	60	.....	G. F. Stephen, Winnipeg....	
" 7	"	61334	H. R. Wood, Napinka.....	3 "	60	.....	Snowdon Oil Co.....	
" 9	"	61338	Myers & Williams, 655 10th St., Brandon.	3 "	60	.....	Sherwin, Williams, Winnipeg.	
" 12	"	61339	A. J. Bond & Co., 1763 Portage Ave., St. James.	3 "	60	.....	Merrick Anderson, Winnipeg	
" 12	"	61340	Aikenhead-Clark Hardware Co., Boyd Building, Winnipeg.	3 "	60	.....	Scarfe & Co., Winnipeg	

DISTRICT OF SASKATCHEWAN—L. H. HALL, TEMPORARY INSPECTOR.

July	18	Turpentine	66394	C. T. Laird, Regina	3	pts.	60		Unknown	
"	19	"	66395	Regina Trading Co., Regina	3	"	60		Continental Oil Co.	
"	19	"	66396	Armstrong Smythe & Dowswell, Regina.	3	"	60		Winnipeg Oil Co., Regina	
"	20	"	66397	John Goebel, Melville	3	"	60		Winnipeg Oil Co., Melville	
"	20	"	66400	E. Smith, Melville	3	"	60		" "	
"	20	"	66402	Wm. Anderson Melville	3	"	40		Sherwin Williams Co., Winnipeg.	
"	21	"	66410	Chas. Beck, Yorkton	3	"	50		Winnipeg OilCo., Yorkton	
"	21	"	66412	D. A. Sands, Yorkton	3	"	75		G. F. Stephens & Co., Winnipeg.	
"	22	"	66416	Isbister & Pretty, Saskatoon	3	"	60		" "	
"	22	"	66418	Fawcett Hardware Co., Saskatoon.	3	"	40		Prairie City Oil Co., Saskatoon.	

DISTRICT OF ALBERTA—A. W. R. MARKLEY, INSPECTOR.

Aug.	10	Turpentine	92246	Northern Hardware Co., Edmonton.	3	pts.	45	Brit. Amer. Paint Co., Edmonton		
"	10	"	92247	Clowes Hardware Co., Edmonton	3	"	60	G. F. Stephens Co., Winnipeg.		
"	10	"	92248	J. A. Werner, Edmonton	3	"	60	Brit. Amer. Paint Co., Edmonton.		
"	10	"	92249	Somerville Hardware Co., Edmonton.	3	"	60	Marshall Wells Alberta Co., Edmonton.		
"	12	"	92250	Geo. D. Wallace, Ltd., Wetaskiwin.	3	"	50	G. F. Stephens Winnipeg		
"	13	"	92251	Morrison & Johnstone, Ltd., Lacombe.	3	"	45	Marshall Wells Winnipeg		
"	13	"	92252	A. M. Campbell, Lacombe	3	"	40	G. F. Stephens Co., Winnipeg.		
"	20	"	92253	J. H. Ashdown Hardware Co., Calgary	3	"	30	Prairie City Oil Co., Winnipeg.		
"	20	"	92254	Marshall Hardware, Ltd., Calgary	3	"	60	Calgary Paint & Glass Co.		
"	20	"	92255	Hull Hardware Co., Calgary	3	"	25	Brit. Amer. Paint Co., Calgary.		

BULLETIN No. 331—TURPENTINE.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF ROCKY MOUNTAINS—THOS. PARKER, INSPECTOR.								
1915.								
July 20	Turpentine	61847	F. Wilmes, Trail	3 pts.	60	Sherwin - Williams Co., Montreal.		
" 20	"	61854	Hunter Bros., Rossland	3 "	40		Jones & Dillingham, Spokane.	
Aug. 6	"	61866	W. R. Megaw, Vernon	3 "	50		McLennan & McFeely, Vancouver.	
" 6	"	61867	Vernon Hardware Co., Vernon	3 "	60		Wood, Vallance & Leggatt, Vancouver.	
" 10	"	61872	Wilcox Hall Co., Kamloops	3 "	50		McLennan & McFeely, Vancouver.	
" 10	"	61875	Marlatt & McKenzie, Kamloops	3 "	50	Imperial Oil Co., Vancouver.		
" 10	"	61876	N. S. Dalgleish, Kamloops	3 "	50	"		
" 16	"	61882	Merritt Mercantile Co., Merritt	3 "	65		Johnson Paint & Varnish Co., Vancouver.	
" 16	"	61883	Armstrong's Departmental Stores Merritt.	3 "	50		Cunningham Hardware New Westminster.	
" 16	"	61886	A. Jackson, Merritt	3 "	60	Imperial Oil Co., Vancouver.		

DISTRICT OF VANCOUVER—E. J. MORGAN, INSPECTOR.

July	28	Turpentine	5034	W. C. Stearman, 613 Granville St., Vancouver.	3 bots.	60	Imperial Oil Co., Vancouver.		
"	28	"	5035	Hunter Henderson Paint Co., 642 Granville St., Vancouver.	3 "	60	British American Paint Co., Victoria.		
"	28	"	5036	F. R. Begg & Co., Ltd., 167 Pender St. W., Vancouver.	3 "	50	A. Ramsay & Son, Montreal.		
"	28	"	5037	Imperial Varnish & Colour Co., 43 Pender St. W., Vancouver.	3 "	60		Crown Paint Co., Vancouver.	
"	28	"	5038	Wood, Vallance & Leggatt, Ltd., 8 Cordova St. W., Vancouver	3 "	40	Imperial Oil Co., Vancouver.		
"	28	"	5039	Gordon Brown & Co., 2021 Granville St., Vancouver.	3 "	35	R. C. Jamieson & Co., Montreal.		Sold as near turpentine.
"	30	"	5054	Crown Paint Co., 24 Cordova St. E., Vancouver.	3 "	50	Texas Turpentine Co., Remlig, Texas, U.S.A.		
"	31	"	5055	Columbia Hardware Co., Columbia St., New Westminster.	3 "	55		Crown Paint Co., Vancouver.	
"	31	"	5056	H. T. Kirk, Columbia St., New Westminster	3 "	60		McLennan & McFeely & Co., Vancouver.	
Aug.	2	"	5057	Vancouver Hardware Co., 819 Granville St., Vancouver.	3 "	60	A. Ramsay & Son, Montreal.		

DISTRICT OF VICTORIA—D. O'SULLIVAN, INSPECTOR.

Sept.	26	Turpentine	6050	Muller Bros., Ltd., P.O. Box 892, Victoria.	3 pts.	60		Imperial Oil Co., Victoria.	
"	26	"	6052	The Standard Co., 840 Fort St., Victoria.	3 "	75		Agent at Seattle.	
"	27	"	6053	D. Harrison & Son, 919 Pandora St., Victoria.	3 "	75		B. A. Paint Co., Victoria	
"	27	"	6054	J. L. Pearson, 1304 Douglas St., Victoria.	3 "	75		"	
"	28	"	6056	[illegible] 1214 Wharf St., Victoria.	3 "	56		The Standard Co., Victoria	
"	28	"	6058	[illegible] 1302 Wharf St., Victoria.	3 "	75		Imperial Oil Co., Victoria.	
"	29	"	6060	[illegible] Laurel Point, Victoria.	3 "	25		A. Hardacre & Co., New Orleans.	
"	29	"	6061	[illegible] Ltd., 618 Fort St., Victoria.	3 "	60		Imperial Oil Co., Victoria.	

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BULLETIN No. 331—TABLE I

RESULTS OF

Name of Inspectoral District.	No. of Sample.	Sp. Gr. at 15·5° C.	Residue 10cc. 40cc. Acid.	Ref. Index 20° C. Residue.	Ref. Index 20° C. Turpentine.	Boiling Point of Fractions from 100cc. 1st, 25cc.	2nd, 25cc.	3rd, 25cc.	Next, 15cc.	Refractive Index and I	II	III
Nova Scotia	64256	0·8598	3·6	1·4714	1·4702	148 - 164	- 172·5	- 195	.....	1·4679	1·4689	1·4689
	64257	0·8621	3·4	1·4701	1·4706	149 - 164	- 174	- 200	.....	1·4694	1·4697	1·4697
	64258	0·8616	3·5	1·4705	1·4704	149 - 164	- 173·5	- 201	.....	1·4687	1·4697	1·4697
	64259	0·8614	3 5	1·4713	1·4704	149 - 164	- 173·5	- 200	.....	1·4687	1·4691	1·4696
	64260	0·8608	3·6	1·4695	1·4700	148 - 164	- 174	- 198	....	1·4689	1·4689	1·4689
	69841	0·8659	0·9	1·5043	1·4703	148 - 157·5	- 158	- 159·5	- 162	1·4689	1·4694	1·4698
	69842	0·8638	0·8	1·5045	1·4699	148 - 157	- 158	- 159·5	- 163	1·4686	1 4688	1·4696
	69843	0·8646	1·1	1·5030	1·4704	152 - 157	- 158·5	- 159	- 161	1·4694	1·4695	1·4704
Cape Breton....	63814	0 8647	1·1	1·5093	1·4709	152 - 157	- 158	- 159·5	162	1·4687	1·4694	1·4700
	63816	0·8646	1·3	1·5105	1·4699	152 - 157	- 157·5	- 158·5	- 161	1·4681	1·4684	1·4690
Pr. Ed. Island..	60363	0·8645	1·3	1·5026	1·4710	153 - 157	- 158	- 159	- 162	1·4685	1·4692	1·4699
	60364	0·8653	1·4	1·5036	1·4699	153 - 156	- 158	- 160	- 164	1·4681	1·4687	1·4694
	60365	0·8626	1 1	1·5030	1·4707	154 - 157	- 158·5	- 159·5	- 162	1·4691	1·4693	1·4699
	60366	0·8638	1·3	1·5071	1·4705	154 - 158	- 158·5	- 159·5	- 162	1·4693	1·4697	1·4702
	60367	0·8818	0·9	1·5068	1·4735	148 - 157 5	- 160	- 164·5	- 193	1·4693	1·4698	1·4707
	60368	0·8703	1·1	1 4833	1·4689	145 - 155	- 158	- 161	..	1·4630	1 4658	1·4680
	60369	0·8567	2·4	1·4677	1·4661	146 - 157	- 160	- 164	- 177	1·4627	1·4641	1·4655
	60370	0·8632	1·1	1·4984	1·4689	144 - 156	- 157	- 158	- 163	1·4677	1·4679	1·4682
	60371	0·8585	4·5	1·4712	1·4696	154 - 168	- 183	- 217	.....	1·4677	1·4681	1·4682
	60372	0·8713	0·4	1·5007	1 4711	147 - 156	- 158	- 160	- 180	1·4677	1·4681	1·4690
New Brunswick.	66151	0·8635	1·1	1·5030	1·4696	149 - 159	- 157	- 157·5	- 159	1·4678	1·4680	1·4683
	66152	0·8634	1·3	1·5047	1·4639	149 - 156·5	- 157	- 158	- 159	1·4686	1·4687	1·4692
	66153	0·8646	1·1	1·5035	1·4705	150 - 156	- 158	- 159	- 161	1·4694	1·4699	1·4701
	66154	0·8635	0·9	1·5028	1·4696	150 - 156 5	- 157·5	- 158	- 160	1·4685	1·4686	1·4687
	66155	0 8632	1·2	1·5056	1·4699	152 - 157	- 157	- 158·5	- 161	1·4687	1·4687	1·4695
	66156	0·8640	1 4	1·5035	1·4693	151 - 157	- 157	- 158	- 161	1·4679	1·4679	1·4690
	66157	0·8638	0·7	1·5033	1·4703	151 - 157	- 158	- 159	- 161·5	1·4691	1·4691	1·4696
	66158	0·8638	1·0	1·5090	1 4699	151 - 157	- 158	- 159	- 161	1·4682	1·4682	1·4698
	66159	0·8656	1·0	1 5053	1·4708	152 - 157·5	- 159	- 160	- 162	1·4693	1·4695	1·4701
	66160	0·8639	1·1	1 4948	1·4699	154 - 158	- 159	- 160	- 164	1·4680	1·4686	1·4694
		Sp. gr. at 20° C.										
Quebec Province.	3603	0·8488	3·80	1·4600	1·4625	120 - 158	- 163	- 169	- 189	1·4598	1·4625	1·4640
	3610	0·8490	3·84	1·4594	1·4625	110 - 158	- 158	- 163	- 184	1·4600	1·4620	1·4634
	3615	0·8655	0·32	1 5090	1·4705	. . . .	.....	.....	.....	.....	.....	.....
	3624	0·8626	3·60	1·4698	1·4690	135 - 162	- 163	- 179	- 238	1·4620	1·4684	1·4684
	3627	0·8614	3 60	1·4705	1·4690	128 - 164	- 171	- 205	- 238	1·4670	1·4678	1·4685
	3584	0·8703	3·52	1·4614	1·4679	110 - 161	- 172	- 198	- 235	1·4602	1·4640	1·4664
	3588	0·8605	3·76	1·4704	1·4685	150 - 164	- 172	- 183	- 205	1·4680	1·4680	1·4680
	3593	0·8655	0·88	1·4970	1·4700	....	... .	... .	.....	.....	... .	... .
	4401	0·8696	0 44	1·5058	1·4710	.. . .	.....	.....	...	...	...	...
	4403	0·8698	0·56	1·5110	1·4715	151 - 157	- 158	- 159	- 169	1·4705	1·4700	1·4710
	4408	0·8688	0·88	1·4988	1·4709	.....	.....	.....	.....	.....	.....	.....
	4410	0·8711	0·96	1·4924	1·4700	130 - 153	- 158	- 159	- 171	1·4681	1·4695	1·4705
	4413	0·8632	0·72	1·4980	1·46 2	. . ....	.....	.....	.....	.....	.....	.....
	4416	0·8795	0·72	1·4874	1·4716	120 - 153	- 159	- 167	- 225	1·4650	1·4684	1·4708
	4423	0·8700	0·64	1·4988	1·4710	. . ....	.....	.....	.....	.. ..	....	....
	299	0·8687	0·88	1·4912	1·4715	150 - 157	- 158	- 159	- 174	1 4690	1·4700	1·4705
	300	0·8660	0·88	1·5010	1·4708	... .	.....	.....	.....	.....	... .	.. .
	311	0·8787	0·64	1·5030	1·4730	....	.....	.....	. .	.....	... .	.....
	313	0 8688	0·80	1·4996	1·4704	.....	.....	.....	.....	.....	.....	.....
	322	0·8607	3·44	1·4644	1·4680	85 - 156	- 167	- 189	- 242	1·4640	1·4665	1·4678
	2769	0·8675	0·72	1·4986	1·4700	... .	. . ..	.....	...	.....	.....	.....
	2771	0·8656	0·88	1·5000	1·4704	... .	.....	.....	...	. .	.....	. .
	2773	0·8642	0·66	1·4965	1·4690	. . ....	.....	.....	...	...	...	... .
	2777	0·8536	3·76	1·4622	1·4650	112 - 163	- 171	- 194	- 230	1·4582	1·4636	1·4660
	2783	0·8675	0·96	1·4972	1·4700	. . ....	.....	.....	.....	.....	...	. .

SESSIONAL PAPER No. 14

PART II—TURPENTINE.

ANALYSIS.

20° C. of Fractions Residues.			Volumes Obtained from 100cc.										Residue on Evaporation.	Iodine Number.	Flash Point.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
IV	Residual 10cc.	Residual 25cc.	Under 150° C.	150° to 154°.	155° to 159°.	160° to 164°.	165° to 169°.	170° to 174°.	175° to 179°.	180° to 184°.	185° to 189°.	190° and over.					
.....	.. .. .	1·4738	4	5	8	14	14	11	6	5	5	3	.. ..	.. .	.....	64256	Adulterated. See note on page 5.
.....	... . .	1·4742	3	3	6	17	15	9	8	5	5	4	....	...	.. .	64257	" "
. . .	.....	1·4741	3	4	7	16	15	9	7	5	3	7	.....	.....	....	64258	" "
.. ....	..... .	1·4743	2	4	9	14	14	10	6	5	4	7	... .	....	.....	64259	" "
.....	.....	1·4737	3	4	8	13	13	11	7	4	5	7	.. .	.. .	.....	64260	" "
1·4708	1·4804	.....	3	4	76	7	..	..	..	..	..	..	.....	.. ..	. ..	69841	
1·4708	1·4798	..... .	3	7	70	10	..	..	..	..	..	..	.....	.....	.....	69842	
1·4713	1·4787	..... .	..	7	75	8	..	..	..	..	..	..	.....	.....	.....	69843	
4·4712	1·4850	.....	..	6	76	8	..	..	..	..	..	..	.....	...	.....	63814	
1·4700	1·4902	.. . .	..	4	84	2	..	..	..	..	..	..	.....	.....	.....	63816	
1·4708	1·4849	.....	..	4	77	9	..	..	..	..	..	..	.....	.....	.....	60363	
1·4705	1·4894	.... .	..	3	73	14	..	..	..	..	..	..	... ..	.....	...	60364	
1·4712	1·4806	.....	..	1	77	12	..	..	..	..	..	..	... ..	.....	.....	60365	
1·4715	1·4777	.. . .		1	79	10	..	..	..	..	..	..	.....	.....	.....	60366	
1·4743	1·5137	.....	2	5	42	28	6	3	2	1	1	..	.....	.....	.....	60367	
.....	.... .	1·4841	5	17	47	6	..	..	..	..	..	..	.....	... ..	...	60368	
1·4669	1·4920	.....	2	11	36	28	9	3	1	..	..	..	.....	.....	.....	60369	Adulterated. See note on page 5.
1·4692	1·4811	.....	2	10	74	4	..	..	..	..	..	..	..	.....	... .	60370	
.	.... .	1·4746		3	10	9	7	13	5	7	5	16	.....	... ..	....	60371	Adulterated. See note on page 5.
1·4723	1·5090	.... .	2	14	58	9	4	2	1	..	..	..	.. ..	.....	..	60372	
1·4694	1·4773	.....	1	10	79	..	..	..	..	..	..	..	.. ..	...	....	66151	
1·4700	1·4763	.... ..	1	3	86	..	..	..	..	..	..	..	.....	.....	.....	66152	
1·4713	1·4828	.....	..	5	82	3	..	..	..	..	..	..	.....	... ..	.. .	66153	
1·4688	1·4782	.....	..	5	84	1	..	..	..	..	..	..	.. ..	... ..	...	66154	
1·4703	1·4794	.... ..	..	5	82	3	..	..	..	..	..	..	.....	... .	....	66155	
1·4695	1·4850	.....	..	6	81	3	..	..	..	..	..	..	.. ..	... .	....	66156	
1·4711	1·4794	....		5	79	6	..	..	..	..	..	..	.. ..	....	.....	66157	
1·4702	1·4813	.. ....		7	81	2	..	..	..	..	..	..	.. ..	... .	....	66158	
1·4710	1·4809	.....	..	2	73	15	..	..	..	..	..	..	.. ..	.....	...	66159	
1·4702	1·4781	.....	..	2	71	17	..	..	..	..	..	..	.. ..	.....	....	66160	
1·4638	1·4784	.. .	1	5	32	23	14	7	6	1	1	.	.....	.. .	.	3603	Adulterated. See note on page 5.
1·4632	1·4780	.....	3	9	50	22	4	1	.	1	.	.	..	.. .	..	3610	" "
		..	..										..	.. .	.....	3615	
1·4698	1·4902	.. .	3	1	7	41	10	10	3	2	1	12	..	..	.	3624	Adulterated. See note on page 5.
1·4715	1·49+		2	1	10	14	21	15	3	2	1	21	..	..	..	3627	
1·4730	1·49+	.....	2	7	12	15	10	11	5	6	3	19	.....	..	..	3384	
1·4688	1·4804	..	.	1	2	22	20	17	8	9	4	7	.	....	..	3388	
....	. .							.	.	.	.		.....	..	..	3393	
													..	..	..	4401	
1·4728	1·4925			1	74	14	1						..	..	..	4403	
		..											..	..	..	4408	
1·4724	1·5044	.	1	32	42	10	1	1					..	..	..	4410	
.....	.....	...											..	..	..	4413	
1·4788	1·5 +	.	6	39	14	14	6	5	2		1	3	....	..	..	4416	
													..	..	..	4428	
1·4720	1·4948			9	66	9	4	2					..	..	..	299	
		..											..	..	..	300	
.	. ...	.											..	..	..	311	
													..	..	..	313	
1·4712	1·4922	.	12	3	4	11	15	5	4	7	7	12	..	..	..	325	Adulterated. See note on page 5
													..	..	..	2769	
													..	..	..	2771	
													..	..	..	2773	
1·4730	1·49+		2	2	13	17	15	9	4	4	4	20	..	..	..	2777	Adulterated. See note on page 5
													..	..	..	2783	

BULLETIN No. 331—TABLE I

RESULTS OF

Name of Inspectoral District.	No. of Sample.	Sp. gr. at 15·5° C.	Residue 10cc. 40cc. Acid.	Ref. Index 20° C. Residue.	Ref. Index 20° C. Turpentine.	Boiling Point of Fractions from 100cc.				Refractive Index and		
						1st, 25cc.	2nd, 25cc.	3rd, 25cc.	Next, 15cc.	I	II	III
	2789	0·8536	2·72	1·4592	1·4650	147—158	—163	—174	—235	1·4635	1·4658	1·4660
	2792	0·8829	0·64	1·4900	1·4728	85—157	—159	—169	—225	1·4654	1·4698	1·4712
	2794	0·8770	2·48	1·4680	1·4702	100—159	—167	—184	—225	1·4640	1·4666	1·4685
	2797	0·8734	0·60	1·4922	1·4690	95—156	—158	—167	—218	1·4650	1·4682	1·4702
Three Rivers	69124	0·8658	0·48	1·5045	1·4702							
	69125	0·8633	0·40	1·5084	1·4704							
	69126	0·8651	0·48	1·5072	1·4704							
	69127	0·8647	0·40	1·5080	1·4702							
	69128	0·8670	0·40	1·5068	1·4702							
	69129	0·8662	0·56	1·5026	1·4704							
	69130	0·8798	0·64	1·4950	1·4720							
	69131	0·8742	0·64	1·5030	1·4726							
	69132	0·8650	0·68	1·5042	1·4704							
	69133	0·8679	0·84	1·4882	1·4694	140—156	—158	—159	—169	1·4650	1·4686	1·4698
	69184	0·8676	0·80	1·4995	1·4710							
Eastern Townships.	63050	0·8799	3·32	1·4665	1·4725	130—169	—183	—210	—247	1·4670	1·4688	1·4700
	63051	0·8559	3·40	1·4635	1·4668	80—164	—169	—190	—238	1·4586	1·4668	1·4686
	63052	0·8483	3·36	1·4580	1·4632	147—159	—161	—163	—179	1·4600	1·4632	1·4648
	63053	0·8652	0·88	1·4922	1·4700	150—155	—155	—155	—159	1·4678	1·4692	1·4700
	63054	0·8666	0·64	1·5020	1·4702							
	63055	0·8499	3·36	1·4564	1·4624	130—156	—156	—166	—197	1·4576	1·4620	1·4636
	63056	0·8488	3·36	1·4590	1·4630	140—159	—161	—164	—195	1·4596	1·4630	1·4644
	63057	0·8665	0·92	1·4952	1·4700							
	65058	0·8794	0·56	1·5012	1·4722							
	63059	0·8662	0·72	1·5022	1·4712							
Montreal	67456	0·8664	0·72	1·5008	1·4705							
	67457	0·8661	0·76	1·5000	1·4704							
	67458	0·8699	0·92	1·4756	1·4690	93—157	—159	—162	—179	1·4632	1·4665	1·4686
	67459	0·8548	3·52	1·4570	1·4638	120—163	—167	—179	—205	1·4612	1·4632	1·4645
	67460	0·8648	0·88	1·4952	1·4694							
	67461	0·8695	3·40	1·4676	1·4704	110—167	—178	—220	—235	1·4668	1·4680	1·4692
	67462	0·8675	0·56	1·5080	1·4712							
	67463	0·8680	0·44	1·5086	1·4710							
	67464	0·8614	3·36	1·4684	1·4700	140—164	—175	—220	—235	1·4680	1·4690	1·4698
	67465	0·8618	3·48	1·4665	1·4698	145—168	—178	—215	—247	1·4624	1·4684	1·4686
Valleyfield	57991	0·8890	0·64	1·4975	1·4740	100—158	—160	—170	—225	1·4680	1·4690	1·4706
	57992	0·8902	0·56	1·4984	1·4750	100—157	—158	—168	—215	1·4682	1·4692	1·4710
	57993	0·8863	0·48	1·4965	1·4740	100—156	—156	—168	—230	1·4680	1·4696	1·4708
	57994	0·8681	0·88	1·4964	1·4706							
	57995	0·8643	0·72	1·4952	1·4692							
	57996	0·8652	0·76	1·4955	1·4706							
	57997	0·8671	1·00	1·5042	1·4704							
	57998	0·8744	0·92	1·4872	1·4710	140—157	—157	—161	—210	1·4680	1·4685	1·4692
	57999	0·8648	1·04	1·5010	1·4702							
	58000	0·8580	3·68	1·4670	1·4680	120—158	—164	—178	—215	1·4652	1·4664	1·4684
Ottawa	51693	0·8451	2·80	1·4521	1·4610	150—157	—158	—159	—174	1·4612	1·4620	1·4630
	51694	0·8659	0·58	1·5050	1·4705							
	51695	0·8668	0·88	1·4968	1·4700							
	51696	0·8662	0·56	1·5002	1·4700							
	51697	0·8602	1·00	1·4715	1·4692	150—167	—177	—207	—238	1·4680	1·4690	1·4690
	51698	0·8667	0·64	1·5005	1·4700							
	51699	0·8665	0·88	1·4995	1·4704							
	63689	0·8471	2·92	1·4494	1·4610	130—153	—154	—158	—169	1·4595	1·4615	1·4622
	63690	0·8664	1·00	1·4998	1·4705							
	63691	0·8486	2·72	1·4586	1·5630	140—157	—158	—159	—169	1·4610	1·4640	1·4648
	63692	0·8662	0·68	1·4970	1·4700							
	63693	0·8227	4·08	1·4412	1·4510	100—140	—153	—157	—163	1·4284	1·4502	1·4616
Kingston	70251	0·8693	0·60	1·5030	1·4708							
	70252	0·8675	0·56	1·5060	1·4710							

SESSIONAL PAPER No. 14

PART II—TURPENTINE.

ANALYSIS.

20° C. of Fractions-Residues.			Volumes Obtained from 100cc.									Residue on Evaporation 0.6m.	Iodine Number.	Flash Point.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
IV	Residual 10cc.	Residual 25cc.	Under 150° C.	150° to 154°	155° to 159°	160° to 164°	165° to 169°	170 to 174°	175° to 179°	180 to 184°	185° to 189°	190° and over.				
1·4614	1·4792	.....	1	20	9	29	11	5	3	2	2	8	....	....	. ..	2789	Adulterated. See note on page 5.
1·4822	1·49+	.....	5	10	38	17	6	3	2	1	1	7	.. ..	....	....	2792	
1·4748	1·49+	.....	4	8	13	22	13	8	4	3	1	14	....	.....	....	2794	Adulterated. See note on page 5.
1·4802	1·49+	.....	4	13	42	14	6	2	1	1	1	6	.. ..	..	.....	2797	
....	.....	.....	..	..	..	..	..	..	..	..	..	..	....	.....	.....	69124	
.....	.....	....	..	..	..	..	..	..	..	..	..	..	.....	....	.....	69125	
.....	.....	.. ..	..	..	..	..	..	..	..	..	..	..	....	..	..	69126	
....	..	... ..	..	..	..	..	..	..	..	..	..	..	....	..	..	69127	
.....	... ..	.....	..	..	..	..	..	..	..	..	..	..	.....	.....	..	69128	
... ..	....	.....	..	..	..	..	..	..	..	..	..	..	..	..	....	69129	
... ..	...	.....	..	..	..	..	..	..	..	..	..	..	..	..	.....	69130	
.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	..	69131	
.....	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	....	69132	
1·4718	1·4968	.....	3	10	62	11	4	..	..	..	..	..	..	..	....	69133	
.....	..	....	..	..	..	..	..	..	..	..	..	..	..	..	....	69134	
1·4760	1·49+	.....	..	..	5	12	12	8	9	9	6	29	....	.	..	63050	Adulterated. See note on page 5.
1·4708	1·4892	.....	4	3	9	14	20	9	5	6	4	6	.. ..	..	..	63051	
1·4650	1·4720	. . .	..	5	29	50	4	1	1	..	..	..	..	.....	.....	63052	" "
1·4712	1·4846	....	..	2	88	..	..	..	..	..	..	..	.....	.....	.....	63053	
..	..	..	..	..	..	..	..	..	..	..	..	..	....	....	....	63054	
1·4645	1·4820	....	1	12	41	16	9	3	2	2	1	3	.....	...	...	63055	Adulterated. See note on page 5.
1·4640	1·4722	.... ..	2	3	25	36	15	7	4	2	1	1	.. ..	.....	..	63056	" "
.. ..	....	....	..	..	..	..	..	..	..	..	..	..	..	.....	.....	63057	
.	.....	.....	..	..	..	..	..	..	..	..	..	..	..	..	.	63058	
.... ..	.....	... ..	..	..	..	..	..	..	..	..	..	..	....	....	.	63059	
.....	....	.	..	..	..	..	..	..	..	..	..	..	..	..	...	67456	
.....	.....	.....	..	..	..	..	..	..	..	..	..	..	.....	.....	..	67457	
1·4720	1·5115	. .	3	8	55	15	5	3	1	..	..	..	..	..	..	67458	
1·4645	1·4892	.....	1	5	5	29	19	11	7	5	2	6	.....	....	..	67459	Adulterated. See note on page 5.
..	....	....	..	..	..	..	..	..	..	..	..	..	....	..	..	67460	
1·4720	1·4930	....	1	1	1	15	15	10	11	9	3	24	.	..	..	67461	Adulterated. See note on page 5.
.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	67462	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	67463	
1·4718	1·4808	.....	..	3	5	17	12	12	7	7	1	26	..	..	..	67464	Adulterated. See note on page 5.
1·4718	1·4852	..	..	3	3	9	20	11	7	5	3	29	..	..	..	67465	" "
1·4830	1·5+	.....	1	11	33	23	6	4	2	1	1	8	....	....	....	57991	
1·4805	1·5+	.....	2	9	47	13	5	3	3	1	1	6	..	..	..	57992	
1·4812	1·5+	.....	4	15	41	11	6	2	2	1	1	7	..	..	..	57993	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	....	..	57994	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	57995	
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	57996	
1·4740	1·49+	.....	..	3	65	8	6	2	1	2	1	2	..	..	..	57997	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	57998	
1·4692	1·4845	..	8	10	27	10	9	4	8	3	1	10	..	..	..	58000	Adulterated. See note on page 5.
1·4610	1·4672	.....	..	4	73	7	5	1	..	..	..	..	..	..	..	51093	" "
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51094	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51095	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51096	
1·4710	1·49	.....	..	2	4	12	21	7	13	4	4	23	..	..	..	51097	Adulterated. See note on page 5
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51098	
1·4600	1·4665	.....	2	53	37	6	2	..	..	..	..	..	..	..	..	63089	Adulterated. See note on page 5.
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	63090	
1·4625	1·4720	.....	..	14	69	6	1	..	..	..	..	..	..	..	..	63091	Adulterated. See note on page 5.
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	63092	
1·4662	1·4760	.....	41	20	27	2	..	..	..	..	..	..	..	..	..	63093	Adulterated. See note on page 5.
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	70251	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	70252	

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BULLETIN No. 331—TABLE I

RESULTS OF

Name of Inspectoral District.	No. of Sample.	S. Gr. at 20°. C.	Residue 10cc. 40cc. Acid.	Ref. Index 20° C. Residue.	Ref. Index 20° C. Turpentine.	Boiling Point of Fractions from 100cc.				Refractive Index and		
						1st. 25cc.	2nd 25cc.	3rd 25cc.	Next, 15cc.	I	II	III
Kingston—*Con.*	70253	0·8648	0·72	1·5024	1·4710							
	70254	0 8726	0·48	1·5058	1·4714							
	70255	0·8562	4·16	1·4722	1·4705	100—164	—174	—184	—243	1·4670	1·4675	1·4685
	70256	0·8682	1·08	1·4860	1·4715	130—154	—159	—167	—210	1·4700	1·4700	1·4710
	70257	0 8673	0·56	1·5062	1·4718							
	70258	0·8655	0·64	1·5039	1·4700							
	70259	0·8657	0·68	1·5060	1·4708							
	70260	0 8649	0 44	1·5065	1·4716							
Toronto	70074	0·8646	0·64	1·5018	1·4702							
	70075	0·8665	0·72	1·5030	1·4720							
	70076	0·8647	0·68	1·5042	1·4714							
	70077	0·8539	2 20	1·4630	1·4660	140—157	—159	—161	—168	1·4620	1·4665	1·4682
	70078	0·8687	0·72	1·4895	1·4698	130—156	—156	—159	—174	1·4648	1·4684	1·4700
	70079	0·8453	3·20	1·4500	1·4624	130—159	—164	—179	—230	1·4612	1·4642	1·4644
	70080	0·8409	3·76	1·4480	1·4602	140—157	—163	—167	—189	1·4550	1·4610	1·4628
	70081	0·8653	0·68	1·4956	1·4702							
	70082	0·8477	2·20	1·4524	1·4635	120—156	—158	—162	—172	1·4560	1 4652	1·4672
	70083	0·8497	1·92	1·4552	1·4644	140—157	—158	—161	—171	1·4600	1·4658	1·4678
Hamilton	70041	0·8682	0·44	1·4985	1·4720							
	70042	0·8690	0·56	1·4995	1·4705							
	70043	0·8422	4·00	1·4552	1·4606	130—158	—161	—169	—195	1·4550	1·4600	1·4622
	70044	0·8617	8·96	1·4825	1 4685	150—156	—156	—156	—161	1·4680	1·4675	1·4690
	70045	0 8649	9·72	1·4970	1·4704							
	70046	0·8721	0·48	1·4975	1·4720							
	70047	0·8660	0·56	1·4984	1·4710							
	70048	0·8659	0·44	1·4998	1·4712							
	70049	0·8734	0·40	1·4958	1·4720							
	70050	0·8700	0·60	1·4970	1·4712							
Windsor	54644	0·8639	0·68	1·5030	1·4694							
	54646	0·8649	0·64	1.5030	1·4700							
	54648	0·8640	0·68	1·5020	1·4698							
	54650	0·8669	0·64	1·5015	1·4706							
	54652	0·8648	0·64	1·5024	1·4694							
	54654	0·8652	0·60	1·5030	1·4692							
	54657	0·8666	0·56	1·5048	1·4705							
	54659	0·8666	0·68	1·5018	1·4712							
	51662	0 8661	0·64	1·5048	1·4694							
	54664	0 8690	0·64	1·5018	1·4710							
	51666	0·8662	0·56	1·5040	1·4710							
	51670	0·8665	0·60	1·5042	1 4705							
		Sp.gr. at 15·6.° C.					Initial Boiling Point.					
Manitoba	61325	0·8592	2·00	1·4780	1·4670		150°					
	61326	0·8685	0.72	1.5155	1·4708		150°					
	61327	0·8687	0·72	1·5100	1·4703		149°					
	61329	0·8765	0·80	1·5104	1·4715		151°					
	61331	0·8619	1·04	1·4875	1·4672		149°					
	61333	0·8703	0·64	1·5090	1·4708		153°					
	61334	0·8595	1·68	1·4820	1.4672		149°					
	61338	0·8699	0·56	1·5050	1·4709		148°					
	61339	0·8684	0·64	1·5080	1·4702		153°					
	61340	0·8647	1·60	1·4820	1·4678		150°					
Saskatchewan	66394	0.8743	0·48	1·5030	1.4705		150°					
	66395	0·8612	1·36	1·4800	1·4673		150°					
	66396	0·8692	0·80	1·5038	1·4703		152°					
	66398	0·8694	0·48	1·5060	1·4706		149°					
	66400	0·8698	0·72	1·5068	1·4708		150°					

SESSIONAL PAPER No. 14

PART II—TURPENTINE.

ANALYSIS.

20° C. of Fraction Residue.			Volumes Obtained from 100cc.										Residue on Evaporation.	Iodine Number.	Flash Point.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
IV	Residual 10cc.	Residual 25cc.	Under 150° C.	150 to 154°.	155 to 159°.	160 to 164°.	165 to 169°.	170° to 174°.	175° to 179°.	180 to 184°.	185° to 189°.	190° and over.					
																70253	
																70254	
1·4715	1·4890		4	6	4	15	15	6	13	12	1	14				70255	Adulterated. See note on page 5.
1·4740	1·5085		1	29	24	18	7	4	4		1	2				70256	
																70257	
																70258	
																70259	
																70260	
																70074	
																70075	
																70076	
1·4684	1·4760		2	10	8	35	5									70077	Adulterated. See note on page 5.
1·4720	1·5028		2	11	62	10	3	2								70078	
1·4598	1·4745		1	4	20	25	16	5	4	3	1	11				70079	Adulterated. See note on page 5.
1·4624	1·4716		4	10	24	25	17	4	1	2	1					70080	" "
																70081	
1·4678	1·4728		6	15	42	22	4	1								70082	Adulterated. See note on page 5.
1·4685	1·4735		3	15	49	17	5	1								70083	" "
																70041	
																70042	
1·4622	1·4850		4	11	31	24	5	5	3	3	2	2				70043	Adulterated. See note on page 5.
1·4700	1·4815			8	81	1										70044	
																70045	
																70046	
																70047	
																70048	
																70049	
																70050	
																54644	
																54646	
																54648	
																54650	
																54652	
																54654	
																54657	
																54658	
																54662	
																54664	
																54666	
																54670	
					63								1·64	329·2		61327	Adulterated. See note on page 5.
					93								1·08	376·2		61328	
					96								1·32	378·0		61337	
					78								2·30	370·5		61329	
					80								1·66	334		61331	
					85								1·82	376·8		61335	
					70								1·98	360·1		61336	
					90								1·91	357·4		61338	
					93								0·93	379·0		61339	
					80								1·92	310·5		61340	
					74								3·35	342·8		66304	
					75								1·35	294·2		66305	
					92								1·36	360·4		66308	
					91								1·77	360·5		66309	
					89								1·88	344·7		66310	

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BULLETIN No, 331—TABLE I

RESULTS OF

Name of Inspectoral District.	No. of Sample.	Sp. Gr. at 15·6° C.	Residue 10 cc. cc. acid.	Ref. Index 20° C. Residue.	Ref. Index 20° C. Turpentine.	Boiling Point of Fractions from 100cc.				Refractive Index and		
						1st, 25cc.	2nd, 25cc.	3rd, 25cc.	Next, 15cc.	I	II	III
Saskatchewan—*Con.*	66402	0·8685	0·52	1·5020	1·4700	.....	Initial Boiling Point. 152°	.....	.....	.....	.....	.....
	66410	0·8681	0·48	1·5022	1·4701	.....	149°	.....	.....	.....	.....	.....
	66412	0·8684	0·64	1·5094	1·4699	.....	152°	.....	.....	.....	.....	.....
	66416	0·8696	0·48	1·5020	1·4708	.....	152°	.....	.....	.....	.....	.....
	66418	0·8691	0·56	1·5100	1·4710	.....	149°	.....	.....	.....	.....	.....
		Sp.gr. at 20° C.										
Alberta.....	52246	0·8599	1·60	1·4518	1·4671	152—160	163	—171	—217	1·4648	1·4660	1·4669
	52247	0·8652	0·32	1·5005	1·4711	156—158	159	—160	—165	1·4689	1·4692	1·4702
	52248	0·8548	1·76	1·4540	1·4665	152—157	—161	—167	—189	1·4648	1·4660	1·4666
	52249	0·8652	0·36	1·4950	1·4710	154—157	—158	—160	—164	1·4689	1·4693	1·4703
	52250	0·8652	0·36	1·4891	1·4708	155—158	—160	—163	—175	1·4682	1·4690	1·4700
	52251	0·8658	0·36	1·4970	1·4700	152—156	—156	—158	—160	1·4683	1·4689	1·4695
	52252	0·8733	0·56	1·4701	1·4711	152—157	—160	—166	—184	1·4666	1·4681	1·4690
	52253	0·8624	0·48	1·4792	1·4700	154—157	—158	—160	—163	1·4683	1·4689	1·4699
	52254	0·8669	0·32	1·5040	1·4711	154—157	—158	—159	—163	1·4690	1·4694	1·4701
	52255	0·8585	1·60	1·4501	1·4663	155—162	—164	—170	—189	1·4649	1·4661	1·4663
Rocky Mountains.	61847	0·8684	0·48	1·5048	1·4708	153—157	—158	—160	—167	1·4684	1·4691	1·4700
	61854	0·8648	0·72	1·5092	1·4711	154—158	—159	—160	—161	1·4693	1·4700	1·4709
	61866	0·8654	0·40	1·5023	1·4719	154—157	—158	—159	—164	1·4699	1·4706	1·4710
	61867	0·8681	0·48	1·5048	1·4710	153—157	—158	—160	—164	1·4686	1·4696	1·4698
	61872	0·8004	6·83	1·4246	1·4420	100—133	—152	—169	—187	1·4208	1·4309	1·4451
	61875	0·8580	2·32	1·4498	1·4661	154—160	—164	—169	—194	1·4639	1·4656	1·4661
	61876	0·8695	0·36	1·5080	1·4709	153—158	—159	—160	—165	1·4681	1·4691	1·4700
	61882	0·7972	7·84	1·4315	1·4411	145—157	—167	—179	—196	1·4371	1·4402	1·4447
	61883	0·8682	0·52	1·4649	1·4700	150—156	—158	—162	—169	1·4629	1·4680	1·4699
	61886	0·8780	0·32	1·4987	1·4729	153—160	—163	—167	—187	1·4680	1·4697	1·4706
Vancouver.. ...	55348	0·8676	0·24	1·5030	1·4710	152—156	—157	—159	—164	1·4687	1·4698	1·4701
	55349	0·8542	1·68	1·4543	1·4667	153—159	—161	—166	—180	1·4651	1·4661	1·4670
	55350	0·8643	0·84	1·4568	1·4690	150—156	—160	—164	—181	1·4630	1·4676	1·4689
	55351	0·8567	0·76	1·4559	1·4660	147—153	—157	—159	—164	1·4579	1·4659	1·4679
	55352	0·8667	0·30	1·4903	1·4703	153—159	—160	—162	—165	1·4669	1·4690	1·4699
	55353	0·8284	5·48	1·4464	1·4543	147—163	—172	—191	—214	1·4453	1·4521	1·4562
	55354	0·8651	0·24	1·5039	1·4700	154—157	—157	—157	—161	1·4684	1·4698	1·4691
	55355	0·8668	0·54	1·4716	1·4695	148—156	—156	—160	—171	1·4620	1·4680	1·4699
	55356	0·8310	7·00	1·4491	1·4581	147—169	—184	—205	—220	1·4442	1·4519	1·4582
	55357	0·8713	0·50	1·4722	1·4702	150—159	—162	—168	—182	1·4631	1·4680	1·4700
Victoria...	66790	0·8665	0·36	1·5002	1·4710	152—157	—157	—159	—164	1·4687	1·4697	1·4702
	66792	0·8700	0·36	1·5062	1·4711	154—157	—158	—159	—164	1·4689	1·9698	1·4701
	66793	0·8573	1·84	1·4649	1·4681	154—161	—164	—167	—181	1·4658	1·4668	1·4679
	66795	0·8503	2·30	1·4480	1·4648	155—159	—162	—169	—184	1·4639	1·4649	1·4653
	66797	0·8691	0·52	1·5040	1·4710	154—158	—160	—161	—167	1·4686	1·4690	1·4700
	66799	0·8775	0·36	1·5008	1·4719	149—156	—157	—162	—184	1·4662	1·4688	1·4699
	66601	0·8639	0·36	1·5021	1·4704	154—157	—157	—158	—160	1·4690	1·4697	1·4703
	66603	0·8461	3·24	1·4523	1·4650	153—160	—160	—172	—187	1·4612	1·4633	1·4640

SESSIONAL PAPER No. 14

PART II—TURPENTINE.

ANALYSIS.

20° C. of Fractions Residues.			Volumes Obtained from 100cc.										Residue on Evaporation.	Iodine Number.	Flash Point.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
IV	Residual 10cc.	Residual 25cc.	Under 150° C.	150° to 154°	155° to 159°	160° to 164°	165° to 169°	170° to 174°	175° to 179°	180° to 184°	185° to 189°	190° and over.					
					92								1·53	348·6		66402	
					86								2·03	329·4		66410	
					86								1·57	348·2		66412	
					87								1·98	346·7		66416	
					93								1·68	338·6		66418	
1·4670	1·4969			1	18	39	14	7	4	3	1	3		312·2	35·5	52246	Adulterated. See note on page 5.
1·4719	1·4919				64	24	2							378·2	32·5	52247	
1·4662	1·4786			1	38	28	13	5	3	1	1			314·7	35·5	52248	Adulterated. See note on page 5.
1·4717	1·4880				68	22								377·0	33·0	52249	
1·4720	1·4989				47	33	6	3	1					373·1	32·5	52250	
1·4709	1·4893			2	79	9								373·1	31·5	52251	
1·4721	1·5041			2	37	28	15	4	2	2				342·0	33·0	52252	
1·4708	1·4788				71	19								371·8	31·5	52253	
1·4713	1·4879				77	13								375·7	34·0	52254	
1·4668	1·4797				16	43	14	7	4	3	3			315·9		52255	Adulterated. See note on page 5.
1·4712	1·4960			1	69	17	3							387·1	33·5	61847	
1·4718	1·4839				65	25								388·6	34·5	61854	
1·4722	1·4903				83	7								387·1	34·5	61866	
1·4715	1·4894			1	68	21								376·0	33·5	61867	
1·4650	1·4889		47	8	8	7	5	5	4	3	3			60·3	5·0	61872	Adulterated. See note on page 5.
1·4653	1·4810				17	40	18	7	4	2	1	1		291·8	35·5	61873	
1·4714	1·4945			1	49	35	5							380·7	32·5	61876	
1·4569	1·4625		3	10	18	12	11	11	9	6	5	5		9·5	32·0	61882	
1·4721	1·5001			10	48	25	7							345·7	29·0	61885	
1·4732	1·5090			1	4	59	16	5	3	1	1			364·9	33·0	61886	
1·4719	1·4910			2	76	12								387·1	33·0	55348	
1·4668	1·4721			1	24	45	11	6	2	1				320·4	34·5	55349	
1·4702	1·4981			8	37	29	9	3	2	2				336·2	30·?	55350	
1·4697	1·4857		8	21	44	7								345·7	29·5	55351	
1·4712	1·4838			1	19	65	?							374·4	32·0	55352	
1·4602	1·4720		2	1	9	13	11	13	9	5	4	17		133·2	34·0	55353	Adulterated. See note on page 5.
1·4706	1·4827				84	6								383·9	34·0	55354	
1·4721	1·5024		3	10	56	14	4	3						345·7	29·0	55355	
1·4639	1·4788		4	5	6	6	6	7	7	8	8	33		53·9	32·0	55356	Adulterated. See note on page 5.
1·4724	1·5031				6	14	49	11	5	3	2			344·8	30·5	55357	
1·4718	1·4911				3	72	15							361·9	33·0	66798	
1·4712	1·4897					78	12							374·4	34·0	66792	
1·4672	1·4778					6	49	25	6	3	1			325·2	35·5	66793	
1·4642	1·4695					25	37	13	9	3	3			287·1	35·5	66795	Adulterated. See note on page 5.
1·4713	1·4900					39	46	5						376·6	34·0	66797	
1·4736	1·5096		2	10	38	10	4	3	2	1				350·5	31·0	66799	
1·4712	1·4827				87	5								388·6	33·5	66800	
1·4628	1·4662			1	10	30	9	9	5	4	2			269·7	35·0	66801	Adulterated. See note on page 5.

APPENDIX W.

BULLETIN No. 332—RAW LINSEED OIL.

OTTAWA, January 14, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to submit a report dealing with two hundred and ten (210) samples of raw linseed oil, obtained by our inspectors throughout Canada in July, August and September of last year.

These samples were purchased from dealers in paint materials, the object being to ascertain to what extent, if at all, surrogates are offered on the market. The fourth schedule to the Adulteration Act defines *White Lead in Oil* as "Dry white lead ground in pure linseed oil, etc," thus involving the identification of linseed oil as a paint material.

In September, 1913 (see Bulletin No. 266), I reported upon fifty-three samples of linseed oil, and from this report I quote the following:—

"Owing to the fact that commercial linseed is never pure, it follows that the oil expressed from such seed varies in character, within limits, depending upon the nature and amount of foreign seeds in admixture. The following extremes are quoted from Allen's Commercial Organic Analysis, 4th edition, vol. II, p. 70:—

Specific gravity at 15·5°C	0·9315 to	0·9410
Solidifying point	16°	27°C.
Melting point of fatty acids	17°	24°C.
Saponification value	190	201
Reichert-Meissl value	0	
Hehner value	95·0	95·5
Iodine value	175	201

Owing to the great variety and diverse character of available adulterants for linseed oil, and to the inevitable variability of the article, even when commercially genuine, the detection (and particularly the specific indentification) of adulteration in linseed oil is far from being a simple matter. Large buyers of linseed oil would do well to furnish specifications of the article they demand, or purchase by sample. The American Society for Testing Materials fixed the following specifications for the year 1910 (*Oil and Colour Journal*, 1909, 36):—

RAW LINSEED OIL.

	Maximum.	Minimum.
Specific gravity at 15°C	0·936	0·932
" 25°C	0·931	0·927
Acid number	6·000	
Saponification value	192	189
Unsaponifiable residue	1·5	
Refractive index at 25°C	1·4805	1·4790
Hanus iodine value	190	178

As judged by the above quoted standards, which, however, have no direct legal approval for Canada, the samples now reported appear as below:—

	Samples.
Genuine	190
Doubtful	9
Adulterated	11
Total	210

Allen (Com. Org. Analysis, Vol. II, 339) quotes the following list of adulterants for linseed oil: Mineral hydrocarbons, cottonseed oil, nigerseed oil, tung oil, fish oil, hempseed oil; rosin and rosin oil, rape oil, ravison oil, safflower oil, and candle nut oil. Of course the particular adulterant selected in a given case will depend upon the cheapness of the adulterant. Mineral hydrocarbons and rosin oil appear most usually in adulterated linseed oil as offered on Canadian markets.

A material which may become available as a substitute for, or possibly as an adulterant of. linseed oil, is a fraction of the oils obtained in the destructive distillation of wood. (Pritchard, *Journal Industrial and Engineering Chemistry*, 1912, 338.) The author says: "We have had these oils tested out for the commercial purposes that rosin oils are used for, and they seem to serve admirably. They can be produced at much less cost."

Teeple (*Journal Industrial and Engineering Chemistry*, 1913, p. 682), writing of the utilization of wood waste, says: "The light oils from resinous woods, which are between tar oil and turpentine in their character, find a very limited market."

I beg to recommend publication of this report as Bulletin No. 332.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1915.							
Sept. 28	Raw Linseed Oil.	64246	Wm. Stairs, Son, & Morrow, Halifax.	1½ pts.	15	Can. Linseed Oil Co., Montreal.	Mfrs .....
" 28	"	64247	Wm. Robertson & Son, Halifax.	1½ "	15	Dom. Linseed Oil Co., Montreal.	" .....
" 28	"	64248	A. M. Bell & Co., Halifax..	1½ "	15	Can. Linseed Oil Mill Co., Montreal.	" .....
" 28	"	64249	Jas. Simmonds, Ltd., Halifax.	1½ "	15	" "	" .....
" 28	"	64250	Geo. E. Smith & Co., Halifax.	1½ "	15	Dom. Linseed Oil Co., Montreal.	" .....
DISTRICT OF NOVA SCOTIA—							
Aug. 13	Raw Linseed Oil.	69831	J. L. Fraser, New Glasgow.	3 pts.	45	Imperial Oil Co., Halifax.	Mfrs.....
" 13	"	69832	Thompson & Sutherland, New Glasgow.	3 "	37	Sherwin-Williams Co., Montreal.	" .....
" 13	"	69833	Bent & Cohoon, New Glasgow.	3 "	38	Can. Paint Co., Montreal.	" .....
DISTRICT OF CAPE BRETON—							
July 27	Raw Linseed Oil.	63813	C. P. Moore, Sydney.....	3 pts.	45	Dom. Linseed Oil Co., Montreal.	.....
" 27	"	63815	Thompson, Sutherland Co., Sydney.	3 "	45	Sherwin-Williams Co., Montreal.	.....
DISTRICT OF PRINCE EDWARD ISLAND—							
July 15	Raw Linseed Oil.	60353	Prowse & Sons, Murray Harbour.	3 pts.	35	.....	Thompson & Sutherland, New Glasgow.
" 17	"	60354	S. H. Crabbe, Charlottetown.	3 "	30	Sherwin-Williams, Montreal.	.....
" 17	"	60355	Fennell & Chandler, Charlottetown.	3 "	35	Dom. Linseed Oil Co., Montreal.	.....
" 19	"	60356	Rogers Hardware Co., Charlottetown.	3 "	35	The Can. Linseed Oil Mills, Ltd., Montreal.	.....
" 19	"	60357	P. J. Benigan, Duneden, Lot 31.	3 "	35	.....	Rogers Hardware Co., Charlottetown
" 19	"	60358	A. J. McNevin, Bonshaw, Lot 0	3 "	35	.....	"

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RAW LINSEED OIL.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive Index at 20° C.	Specific Gravity at 15·5° C.	Saponification Number.	Spot Test.	Unsaponifiable Matter.		
R. J. WAUGH, INSPECTOR.							
.....	1·4807	0·933	191·6	Linseed	.....	64246	Genuine.
....	1·4810	0·934	192·5	"	....	64247	"
....	1·4808	0·933	190·8	"	.....	64248	"
....	1·4808	0·933	189·0	"	.....	64249	"
.....	1·4809	0·933	190·8	"	...	64250	"
WALTER A. PETIPAS, TEMPORARY INSPECTOR.							
....	1·4808	0·933	190·8	Linseed	.	69831	Genuine.
....	1·4810	0·933	193·2	"	..	69832	"
....	1·4809	0·933	194·8	"	....	69833	"
E. F. McKEEN, INSPECTOR.							
.. ..	1·4808	0·933	193·0	Linseed		68812	Genuine.
....	1·4810	0·932	193·9	"		68813	"
WM. A. WEEKS, INSPECTOR							
....	1·4808	0·932	192·0	Linseed		66[illegible]	Genuine.
.. ..	1·4800	0·929	187·5	"	1·17	663[illegible]	Specific gravity low. Doubtful.
.. ..	1·4804	0·933	192·3	"		66[illegible]	Genuine.
.	1·4811	0·933	193·8	"		66[illegible]	"
....	1·4819	0·939	192·0	Foreign oil.	1·80	66[illegible]	Doubtful. Non-saponifiable too high.
....	1·4812	0·934	195·3	Linseed		66[illegible]	Genuine.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF PRINCE EDWARD ISLAND—							
1915.							
July 23	Raw Linseed Oil.	60359	Russell Car, Morell	3 pts.	35	Can. Paint Co., Montreal.	
" 23	"	60360	H. H. Cox, Morell	3 "	35	Can. Linseed Oil Mills, Ltd., Montreal.	
" 23	"	60361	Lestock, Anderson, St. Peters.	3 "	35	A. M. Bell Co., Halifax.	
" 23	"	60362	Matthew & McLean, Ltd., Souris.	3 "	35	Sherwin-Williams, Montreal.	
DISTRICT OF NEW BRUNSWICK—							
Aug. 2	Raw Linseed Oil.	66141	Robertson, Foster & Smith, St. John.	3 pts.	40	Dom. Linseed Oil Co., Montreal.	
" 3	"	66142	F. A. Young, St. John	3 "	40	The Can. Oil Co., Ltd., Montreal.	
" 3	"	66143	T. McAvity & Sons, St. John.	3 "	40	Dom. Linseed Oil Co., Montreal.	
" 4	"	66144	W. H. Thorne & Co., Ltd., St. John.	3 "	45	Can. Linseed Oil Mills, Montreal.	
" 4	"	66145	H. L. & J. T. McGowan, St. John.	3 "	50	"	
" 11	"	65146	The De Wolfe Hardware Co., St. Stephen.	3 "	45		Robertson, Foster & Smith, St. John.
" 17	"	66147	R. Chestnut & Son, Fredericton.	3 "	45	Dom. Linseed Oil Co., Montreal.	
" 18	"	66148	W. F. Dibbley & Son, Woodstock.	3 "	45		Can. Paint Co., Ltd., Montreal
" 24	"	66149	Sussex Mercantile Co., Ltd., Sussex.	3 "	45	Can. Linseed Oil Co, Ltd., Montreal.	
" 26	"	66150	Sumner & Co., Moncton	3 "	30		De B. Carritte, St. John.
DISTRICT OF QUEBEC PROVINCE—							
July 6	Huile de lin.	3602	A. Audet, Ste. Claire	3 pts.	35		The Beaver Co., Ltd., Montreal.
" 7	"	3604	Dorchester Lumber, St. Malachi.	3 "	21	Sherwin-Williams.	
" 12	"	3611	J. L. Audet, St. Edward.	3 "	25	William Doyle	
" 16	"	3625	P. K. Prevost, Ste. Rose	3 "	15	Herwin Young, Quebec.	
" 17	"	3626	Ganipie, Ste. Prosperie.	3 "	25	Fratingham, Montreal.	

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RAW LINSEED OIL.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive Index at 20° C.	Specific Gravity at 15·5° C.	Saponification Number.	Spot Test.	Unsaponifiable Matter.		
Concluded.							
.....	1·4808	0·932	196·1	Linseed	.....	60359	Genuine.
.....	1·4811	0·933	197·3	"	....	60360	"
.....	1·4811	0·934	193·5	"	.....	60361	"
.....	1·4811	0·934	196·8	"	...	60362	"
JOHN C. FERGUSON, INSPECTOR.							
.....	1·4811	0·932	191·9	Linseed	.....	66141	Genuine.
.....	1·4808	0·933	190·7	"	.....	66142	"
.....	1·4811	0·933	193·5	"	.....	66143	"
.....	1·4809	0·933	192·4	"	.....	66144	"
.....	1·4807	0·933	192·2	"	.....	66145	"
.....	1·4810	0·933	192·0	"	.....	66146	"
.....	1·4805	0·933	193·2	"	.....	66147	"
.....	1·4806	0·932	192·0	"	.....	66148	"
.....	1·4813	0·933	195·7	"	.....	66149	"
.....	1·4804	0·933	193·2	"	.....	66150	"
J. E. AUDET, D. BROCHU, N. CADIEUX, T. GENDREAU, TEMP. INSPECTORS.							
.....	.....	0·944	180·7	Doubtful	6·14	3502	Adulterated. Saponification below limit.
.....	.....	0·934	189·8	Linseed	.....	3504	Genuine.
.....	.....	0·950	183·2	"	1·28	3511	Doubtful. Saponification below limit.
.....	.....	0·939	176·9	Doubtful.	5·80	3525	Adulterated. Saponification below limit.
.....	.....	0·935	173·7	Indications of cotton-seed	8·49	3527	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF QUEBEC PROVINCE—				
1915.							
July 20	Huile de lin. crue.	3587	Michel Lacroix, St. Raphael.	1 pt..	20	Sherwin-Williams	
" 20	Huile de lin.	3590	Archilie Lamarie, St. Valier.	1 " ..	23	Can. Paint, Montreal.	
" 20	"	3592	L. A. Roy, St. Valier.. ..	1 " ..	24	" ..	
" 22	Huile lin bouillie,	4402	Geo. Roy, St. Michel.....	3 bots.	23	Martin Senour Co., Montreal.	
" 22	"	4404	J. A. Lemieux, St. Michel..	3 "	23	Sherwin-Williams Co., Montreal.	
" 22	Huile de lin.	4411	J. B. Lacroix, St. Charles...	1 pt..	25	Can. Paint Co....	
" 22	"	4412	J. E. Rouillard, St. Gervais.	1 " ..	30	Sherwin-Williams Co.	
" 22	Huile de lin.	4417	Arthur Arsenault, St. Gervais.	1 Pte.	23	Can, Paint Co., Montreal.	
" 23	" " ..	4421	Charles Gagnon, St. Damien	1 "	32	Dorchester Lambert Co., Montreal.	
" 23	" " ..	4422	Napoleon Aubin, St. Damien	1 "	32	" "	
" 12	" " ..	297	Alexandre Villeneuve, St. Jerome.	3 chop	60	Mount Royal Colour & Varnishing Co., Ltd. Montreal.	
" 12	" " ..	298	Charlesmagne Taillon, St. Jerome.	3 "	51	Sherwin Williams	
" 19	" " ..	310	Adelard Sigouin Ste. Agathe des Mont.	3 "	50	Mount Royal. ..'	
" 19	" " ..	312	F. Lebrecque, Ste. Agathe des Mont.	3 "	60	R. C. Jameson....	
" 15	" " .	2768	Anselme Provost, St. Francois Montmagny.	1 "	15	Can. Paint Co., Montreal.	
" 16	" " ..	2770	George Roy, Berthier	1 "	15	Martin Senour, Montreal.	
" 18	" " ..	2774	Alphonse Letourneau, St. Pierre, Montmagny.	1 "	15	Samson & Filion, Quebec.	
" 20	" " ..	2778	Joseph Dube, Cap St. Ignace	1 "	15	Stark Seybold Ltd. Montreal.	
" 21	" " ..	2784	Joseph Fournier, St. Thomas Montmagny.	1 "	15	J. E. Lemieux, Quebec.	
" 26	" " ..	2790	Alphonse Labarge, Montmagny.	1 "	15	Can. Paint Co., Montreal.	
" 27	" " ..	2791	Ludger Godbout, St. Rosaire, Montmagny.	1 "	15	Livingstone Linseed Oil, Montreal.	
" 28	" " .	2795	J. P. Letourneau, St Paul, Montmagny.	1 "	15	Can. Paint Co., Montreal.	
" 29	" " ..	2798	G. Blais, St. Euphemi. Montmagny.	1 "	15	Sherwin Williams, Montreal.	
Sept. 14	Huile de peinture	321	Ernest Lahaie, St. Eustache, Comté des deux Mont.	3 "	30	Prudhomme, Montreal.	

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RAW LINSEED OIL.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of sample.	Remarks and Opinion of the Chief Analysis.
	Refractive Index at 20°C.	Specific Gravity 15·5° C.	Saponification Number.	Spot Test.	Unsaponifiable Matter.		
Concluded.							
.....	.....	0·935	191·4	Linseed	.....	3587	Genuine.
.....	.....	0·937	187·4	"	1·64	3590	"
.....	.....	0·938	188·1	"	1·64	3592	"
.....	.....	0·938	182·0	"	2·42	4402	Doubtful. Unsaponified residue is high.
.....	.....	0·938	189·9	"	....	4404	Genuine.
.....	.....	0·937	184·8	"	1·48	4411	"
.....	.....	0·938	183·2	"	1·28	4412	"
.....	.....	0·950	187·8	"	1·10	4417	Abnormal, Specific gravity, doubtful.
.....	.....	0·936	187·6	"	0·90	4421	Genuine.
.....	.....	0·939	186·8	"	1·24	4422	"
.....	.....	0·934	183·2	Doubtful.	2·94	297	Doubtful, Unsaponified residue is high.
.....	.....	0·937	183·8	Linseed	68	298	Genuine.
.....	.....	0·935	190·3	"	..	310	"
.....	.....	0·937	191·4	"	...	312	"
.....	.....	0·938	185·6	"		2768	"
.....	.....	0·940	186·0	"	3·80	2770	"
.....	.....	0·938	189·8	"		2774	"
.....	.....	0·935	177·5	Indicates mineral oil	4·82	2778	Adulterated, saponification too low
.....	.....	0·936	180·2	"	6·28	2784	" "
.....	.....	0·937	184·4	Linseed	1·20	2790	Genuine. "
.....	.....	0·937	180·7	Doubtful	5·38	2791	Adulterated, Saponification too low
.....	.....	0·936	185·7	Linseed	1·50	2796	Genuine. "
.....	.....	0·935	190·2	"		2798	" "
.....	.....	0·937	184·5	"		321	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF THREE RIVERS—							
1915.							
July 7	Linseed Oil Crude.	69106	Chas. Leblanc, Joliette....	3 pts.	45	Can. Paint Co., Montreal.	.....
" 8	"	69115	S. Costello, Joliette.....	3 "	38	"	.....
" 7	"	69116	Edm. Wodon, Joliette.....	3 "	38	The Joliette Steel Co., Joliette.	.....
" 9	"	69117	Monahan Bros., St. Lin....	3 "	40	Imperial Oil Co., Montreal.	.....
" 10	"	69118	George Beaudoin, St. Esprit.	3 "	45	Can. Paint Co., Montreal.	.....
" 12	"	69119	E. Lamion, L'Epiphanie...	3 "	45	"	.....
" 22	"	69120	L. O. Lassalle, St. Jacques.	3 "	45	Caverhill Learmcnt, Montreal.	.....
" 13	"	69121	Bedard Cie, L'Assomption..	3 "	40	Can. Paint Co., Montreal.	.....
" 23	"	69163	J. A. Bellerose, St. Felix de Valois.	3 "	48	Lewis Bros, Montreal.	.....
" 23	"	69164	Wilfred Bonin, St. Felix de Valois.	3 "	48	Can. Paint Co., Montreal.	.....
DISTRICT OF EASTERN TOWNSHIPS—							
Aug. 11	Raw Linseed Oil.	63060	W. Bourque, Sherbrooke...	3 pts.	40	.....	.....
" 11	"	63061	Jos. Lacombe et fils, Sherbrooke.	3 "	35	Mount Royal Colour & Varnish Co., Montreal.	.....
" 11	"	63062	Marc. E. Cadieux, Sherbrooke.	3 "	45	Georgia Turpentine Co.	.....
" 11	"	63063	Coderre & fils, Inc., Sherbrooke.	3 "	45	Martin Senour Co, Ltd., Montreal.	.....
" 11	"	63064	J. S. Mitchell & Co., Sherbrooke.	3 "	60	Dom. Linseed Oil Co., Montreal.	.....
" 13	"	63065	Beaumoyer & Laliine, St. Hyacinthe.	3 "	37	Can. Paint Co., Montreal.	.....
" 13	"	63066	J. B. St. Pierre, St. Hyacinthe.	3 "	38	.....	.....
" 17	"	63067	N. Mitchell & Co., Granby.	3 "	35	Sherwin-Williams, Ltd., Montreal.	.....
" 18	"	63068	E. E. Gauvin & Co., Magog.	3 "	35	.....	.....
" 18	"	63069	W. McKenna, Magog.....	3 "	35	Ramsay Sons & Co., Montreal.	.....

SESSIONAL PAPER No. 14

RAW LINSEED OIL.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive Index at 20° C.	Specific Gravity at 15·5° C.	Saponification Number.	Spot Test.	Unsaponifiable Matter.		
DR. V. P. LAVALLEE, INSPECTOR.							
		0·936	192·1	Linseed.	....	69106	Genuine.
		0·933	190·9	"	....	69115	"
		0·930	159·1	Indicates mineral oil	10·80	69116	Adulterated. Saponification too low. Some uncertainty in identification of sample.
		0·933	192·1	Linseed.	.....	69117	Genuine.
		0·940	192·1	"	....	69118	"
		0·935	192·8	"	..	69119	"
		0·933	192·8	"	....	69120	"
		0·933	191·5	"		69121	"
		0·932	192·8	"	..	69163	"
		0·933	192·1	"	....	69164	"
J. J. COSTIGAN, ACTING INSPECTOR.							
		0·935	190·9	Linseed.	..	63060	Genuine.
		0·933	190·3	"	..	63061	"
		0·934	166·8	Doubtful.	10·88	63062	Adulterated. Saponification too low.
		0·935	189·8	Linseed.		63063	Genuine.
		0·935	189·1	"		63064	"
		0·935	189·8	"		63065	"
		0·935	189·1	"		63066	"
		0·934	189·8	"		63067	"
		0·933	190·9	"		63068	"
		0·935	192·0	"		63069	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.
DISTRICT OF MONTREAL—							
1915.							
Aug. 4	Raw Linseed Oil.	67446	The People's Hardware Co., 152 St. Lawrence Boul., Montreal.	3 pts.	45	Unknown	
" 4	" ..	67447	L. J. A. Surveyor, 52 St. Lawrence Boul., Montreal	3 "	45	Mount Royal Colour and Varnish Co.	
16	" ..	67448	A. Brouillet, 1390 St. Lawrence Boul., Montreal.	3 "	38	Can. Paint Co.	
16	" ..	67449	O. Rollin & Co., 1324 St. Lawrence Boul., Montreal	3 "	38	Martin Senour Co.	
" 16	" ..	67450	Beauvrais Freres, 336 St. Lawrence Boul., Montreal	3 "	45	Unknown	
" 23	" ..	67451	J. O. Denis, 239 St. Paul St. E., Montreal.	3 "	30	Mount Royal Colour & Varnish Co	
" 24	" ..	67452	Levac & Lalonde, 187 Church Ave., Verdun.	3 "	40	Martin Senour Co.	
" 24	" ..	67453	Fauteux Ltd., 1365 Wellington St., Verdun.	3 "	40	Can. Paint Co.	
" 24	" ..	67454	The Raymond Hardware, Ltd., 343 Notre Dame St. W., Montreal.	3 "	38	Unknown	
" 24	" ..	67455	I. L. Lafleur, 366 Notre Dame St. W., Montreal.	3 "	38	Dom. Linseed Oil Co.	
DISTRICT OF VALLEYFIELD—							
July 22	Raw Linseed Oil.	57981	L. P. Beaulne, Hawkesbury.	3 pts.	40	Can. Paint Co.	
" 22	" ..	57982	J. G. Higginson, " ..	3 "	25	Brandram Henderson Co.	
" 22	" ..	57983	J. O. Phœnix, " ..	3 "	45	Can. Paint Co ..	
" 27	" ..	57984	Victor Lezer, Valleyfield..	3 "	40		
" 27	" ..	57985	Besner Chasle, " ..	3 "	36		
" 27	" ..	57986	N. Langevin, " ..	3 "	35		
" 27	" ..	57987	A. Lebeuf, " ..	3 "	35	McColl Bros. Montreal.	
" 28	" ..	57988	August Forget, St. Johns..	3 "	30	" "	
" 28	" ..	57989	C. O. Gervais & Frere " ..	3 "	40		
" 28	" ..	57990	E. Laberge, Sherville..	3 "	35		

SESSIONAL PAPER No. 14

RAW LINSEED OIL.

Inspector's Report (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinions of the Chief Analyst.
	Refractive Index at 20° C.	Specific Gravity at 15·5° C.	Saponification Number.	Spot Test.	Unsaponifiable Matter.		
D. J. KEARNEY, INSPECTOR.							
....	.....	0·939	189·8	Linseed.	.....	67446	Genuine.
.....	.....	0·936	186·7	"	2·52	67447	Doubtful; Unsaponified residue high.
....	.....	0·936	191·4	"	....	67448	Genuine.
. . ..	.....	0·934	190·9	"	...	67449	"
....	.....	0·935	189·8	"	.....	67450	"
....	... ..	0·935	189·8	"	..	67451	"
....	.....	0·935	190·2	"	.	67452	"
....	.....	0·933	191·4	"		67453	"
....	.....	0·935	190·9	"	...	67454	"
. ...	... ..	0·934	190·9	"	.	67455	"
J. J. COSTIGAN, ACTING INSPECTOR.							
.....	.....	0·938	192·1	Linseed.	.. ..	57981	Genuine.
.. ..	...	0·935	193·4	"		57982	"
... ...	.... .	0·934	190·2	"	0·82	57983	"
....	....	0·934	190·2	"		57984	"
... ...	.....	0·934	191·5	"		57985	"
.. ..	.....	0·933	190·9	"		57986	"
...	...	0·969	133·8	Doubtful	25·50	57987	Adulterated; Saponification too low
....	.. ..	0·935	192·8	Linseed	.. .	57988	Genuine.
... .		0·930	148·4	Doubtful	30·26	57989	Adulterated; Saponification too low
.. ..	.....	0·934	189·6	Linseed.	0·78	57990	Genuine.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name And Address of Manufacturer or Furnisher as given by the Vendor, Manufacturer.	Name And Address of Manufacturer or Furnisher as given by the Vendor, Furnisher.
DISTRICT OF OTTAWA—							
1915.							
July 16	Raw Linseed Oil.	59292	E. J. McGarry, Renfrew.	3 pts.	35	Ottawa Paint Works, Ottawa.	Mfrs.
" 16	" "	59293	Devine & Legree, Renfrew.	3 "	45	Livingstone Linseed Oil Co., Montreal.	"
" 17	" "	59294	R. H. Smart, Brockville.	3 "	30	Sherwin Williams, Montreal.	"
" 17	" "	59295	A. G. Dobbie & Co., Brockville.	3 "	40	Can. Linseed Oil Mills, Montreal.	"
" 17	" "	59296	B. D. Steacy, Brockville.	3 "	45	Can. Paint Co., Montreal.	"
" 24	" "	59297	Austin Jarvo, Cornwall.	3 "	35	Livingstone Linseed Oil Co., Montreal.	Stark, Seybold Ltd., Montreal
" 24	" "	59298	N. Turner, & Son, Cornwall.	3 "	35	Ottawa Paint Works, Ottawa.	Mfrs.
" 31	" "	59299	J. M. Taylor, Pembroke.	3 "	45	" "	"
" 31	" "	59300	Dunlop & Co., Ltd., Pembroke.	3 "	45	" "	"
Aug. 7	" "	51700	Stephen Pilon, Rockland.	3 "	30	" "	"
" 13	" "	63694	Taylor Bros., Carleton Place	3 "	35	McArthur & Irvine, Montreal.	"
" 13	" "	63695	W. J. Muirhead, Carleton Place.	3 "	35	" "	"
DISTRICT OF KINGSTON—							
July 28	Raw Linseed Oil.	70241	Savage & Wightman, Kingston.	3 pts.	18	Sanderson & Percy Co., Toronto.	
" 28	" "	70242	Robinson Bros., Kingston.	3 "	32		J. H. Morin, Toronto.
" 28	" "	70243	A. Chown & Co., Kingston.	3 "	15	Livingstone, Montreal.	
" 28	" "	70244	John Laird & Son, Kingston.	3 "	20		Dalton & Son, Kingston.
" 28	" "	70245	H. W. Marshall, Kingston.	3 "	45		" "
" 28	" "	70246	Simmons Bros., Kingston.	3 "	20	Sherwin Williams, Montreal.	
" 28	" "	70247	J. B. Bunt & Co	3 "	35		Dalton & Son, Kingston.
" 28	" "	70248	W. A. Mitchell, Kingston.	3 "	30		" "
" 28	" "	70249	Batsford & Nicol, Kingston.	3 "	45		W. A. Mitchell, Kingston.
" 28	" "	70250	McKelvey & Birch, Kingston	3 "	30	McArthur & Irwin, Montreal.	

SESSIONAL PAPER No. 14

RAW LINSEED OIL

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive Index at 20° C.	Specific Gravity at 15·5° C.	Saponification Number.	Spot Test.	Unsaponifiable Matter.		
J. A. RICKEY, INSPECTOR.							
.. ..	.....	0 934	188 2	Linseed	.. ..	59292	Genuine.
....	.....	9 934	188·2	"	1 60	59293	"
....	.....	0·932	188·8	"	...	59294	"
....	.....	0·934	188·8	"	...	52925	"
....	... .	0·935	190·9	"	.. ..	59296	"
. ...	.....	0 933	190 9	"	.....	59297	"
. . . .	.. ....	0 934	190 9	"	.....	59298	"
....	.....	0 933	191·5	"	..	59299	"
....	. .....	0 933	190 9	"		59300	"
....	.....	0 935	189 8	"	.	51700	"
... .	... ..	0 934	192·1	"	..	63994	"
. .. .	.. ..	0 934	191 5	"	..	63995	"
JAMES HOGAN, INSPECTOR.							
....	....	0 933	189 4	Linseed		70241	Genuine
.. ..	...	0 934	194 0	"	..	70242	"
....	.....	0 933	193 4	"		70243	"
...		0 934	194	"		70244	"
.. . .	. .	0 933	192 8	"		70245	"
		0 933	193 4	"		70246	"
....		0 934	193 4	"		70247	"
.. ..	.....	0 934	192	"		7024	"
....	.....	0 934	190 8	"		7024	"
....	.....	0 934	190 8	"		7025	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF TORONTO—							
1915.							
Aug. 8	Raw Linseed Oil.	70064	H. Stainton, 44 Vaughan Rd., Toronto.	3 bots.	30	Can. Linseed Oil Co., Baden.	.....
" 10	"	70065	R. P. Freek, 681 St. Claire, Toronto.	3 "	40	.....	H. H. Broadfield, Toronto.
" 11	"	70066	McMillan & Costin, 166 Main St., Toronto.	3 "	30	Sherwin-Williams, Ltd., Toronto.	.....
" 13	"	70067	Cutts Hardware Co., 1824 Dundas St. W., Toronto.	3 "	30	.....	Martin, Senour, Ltd., Toronto.
" 14	"	70068	A. M. Oldham, Weston	3 "	45	Sherwin-Williams, Ltd., Toronto.	.....
" 16	"	70069	Geo. Garrett, 582 College St., Toronto.	3 "	30	.....	Stewart & Wood, Toronto.
" 16	"	70070	J. Jolly, 702 College St., Toronto.	3 "	45	.....	" "
" 8	"	70071	Johnson & Co., 1000 Dundas St., Toronto.	3 "	30	Sherwin-Williams, Ltd., Toronto.	.....
" 18	"	70072	M. Toose, 121 Roncesville Ave., Toronto.	3 "	40	Turpentine Producers, Ltd., Toronto.	.....
" 20	"	70073	P. J. Madigan, 1130 Queen St. W., Toronto.	3 "	35	Sherwin-Williams, Ltd., Toronto.	.....
DISTRICT OF HAMILTON—							
July 21	Raw Linseed Oil.	70051	W. W. McClelland & Co., Niagara-on-the-Lake.	3 pts.	20	Sherwin-Williams Co., Montreal.	.....
" 22	"	70052	Coy Bros., 73 St. Paul St., St. Catherines.	3 "	45	.....	Unknown .....
" 23	"	70053	J. T. Henderson, 43 Queen St., Niagara Falls.	3 "	40	.....	Hobbs Hardware Co., Ltd., London.
" 23	"	70054	Garner Bros., 122 Main St., Niagara Falls S.	3 "	35	Sherwin-Williams Co., Ltd., Toronto.	.....
" 24	"	70055	Chas. Kister, Chippawa....	3 "	38	.....	Unknown .....
" 28	"	70056	Smith & Schaefer, Bolton ..	3 "	25	.....	Sanderson, Pearey Co, Toronto.
Aug. 3	"	70057	J. A. Hendeson, Brampton.	3 "	35	.....	Sherwin-Williams Co., Toronto.
" 4	"	70058	L. Y. Reid, Georgetown...	3 "	40	Sherwin-Williams Co., Toronto.	.....
" 5	"	70059	A. J. Wright, 205 James St. N., Hamilton.	3 "	25	Livingstone Linseed Oil Co., Baden.	.....
" 5	"	70060	A. Oliver, 248 York St., Hamilton.	3 "	25	.....	Wood & Valance Co., Ltd., Hamilton.

SESSIONAL PAPER No. 14

RAW LINSEED OIL.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive Index at 20° C.	Specific Gravity at 15·5 C.	Saponification Number.	Spot Test.	Unsaponifiable Matter.		
H. J. DAGER, INSPECTOR.							
		0·934	191·5	Linseed.		70064	Genuine.
		0·936	192·1	"		70065	"
		0·933	192·1	"		70066	"
		0·934	192·1	"		70067	"
		0·933	191·5	"		70068	"
		0·936	187·7	"	0·62	70069	"
		0·933	192·8	"		70070	"
		0·935	192·1	"		70071	"
		0·925	169·9	Doubtful.	9·68	70072	Adulterated. Saponification too low.
		0·933	192·8	Linseed.		70073	Genuine
H. J. DAGER, ACTING INSPECTOR.							
		0·934	190·9	Linseed.		70051	Genuine.
		0·935	192·8	"		70052	"
		0·934	191·5	"		70053	"
		0·931	189·6	"		70054	"
		0·940	191·5	"		70055	"
		0·932	191·5	"		70056	"
		0·933	192·8	"		70057	"
		0·934	191·5	"		70058	"
		0·934	192·1	"		70059	"
		0·933	192·1	"		70060	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vender.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF WINDSOR—
1915.							
Aug. 9	Raw Linseed Oil.	54643	Odell & Mitchell, London..	3 bots.	20	Livingstone Oil Co., Baden.	.....
" 9	"	54645	Love Hardware Co., London.	3 "	25	" "	....
" 9	"	54647	J. G. Steele & Co., London.	3 "	25	.....	Howden Hardware Co., London.
" 10	"	54649	A. Westman, London.....	3 "	20	.....	" "
" 10	"	54651	Kilpatrick Bros., London...	3 "	20	.....	" "
" 10	"	54653	F. E. Jones, London East.	3 "	10	... ...	G. A. Burdick & Son, London.
" 12	"	54656	Fred W. Karn, Woodstock.	3 "	20	Livingstone Linseed Oil Co., Baden.	.....
" 12	"	54658	J. N. Smiley, Woodstock..	3 "	20	... .	Davidson & McInnes, Woodstock.
" 12	"	54661	Davidson & McInnes, Woodstock.	3 "	25	... .	T. N. Dunn, Ingersoll.
" 13	"	54663	McMurtry Hardware Co., St. Thomas.	3 "	12½	Sherwin Williams Co., Toronto.	....
" 13	"	54665	Jackson & Firth, St. Thomas	3 "	30	" "	....
" 13	"	54668	A. E. Campbell, St. Thomas	3 "	17½	....	Hobb's Hardware Co., London.
							DISTRICT OF MANITOBA—
Aug. 4	Raw Linseed Oil	61328	R. Steiman Hardware Co., 541 Selkirk Ave., Winnipeg.	3 pts..	60	....	S. F. Stephens Co., Winnipeg.
" 4	"	61330	Tulley & Davey, 1772 Main St., Winnipeg.	3 "	60	....	Marshall Wells, Winnipeg.
" 5	"	61332	R. Thornton, 262 Tache Ave Norwood.	3 "	60	....	Wood Valasee Co., Winnipeg
" 4	"	61335	Walter Johnson. 563 Sherbrooke St., Winnipeg.	3 "	60	....	" "
" 4	"	61336	Andrew & Sons, Victor St., Winnipeg.	3 "	60	....	Can. Paint Co., Winnipeg.
" 5	"	61337	Allaire & Bleau, 568 Tache Ave., St. Boniface.	3 "	60	....	Sherwin Williams, Winnipeg.
" 7	"	61341	H. R. Wood, Napinka, Man.	3 "	45	.....	" "
" 9	"	61342	C. J. Wyers, 763 13th St., Brandon.	3 "	60	.....	Winnipeg Oil Co., Winnipeg
" 12	"	61343	A. J. Bond & Co., 1763 Portage Ave., St. James.	3 "	60	....	Merrick Anderson, Winnipeg
" 12	"	61344	Aikenhead Clarke Hardware, Boyd Building, Winnipeg.	3 "	60	....	Scrape & Co., Winnipeg.

SESSIONAL PAPER No. 14

RAW LINSEED OIL.

Inspector's Report (Is not an expression of Opinion.	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive Index at 20° C.	Specific Gravity at 15·5° C.	Saponification. Number.	Spot Test.	Unsaponifiable Matter.	Iodine Number.	Time of drying at 70° C.	Time of drying in air.		
JOHN TALBOT, INSPECTOR.										
.....	.....	0·934	190·9	Linseed	...	.....	. ..	...	54643	Genuine.
....	.....	0·934	190·9	"	.....	....	.....	...	54645	"
....	.....	0·933	192·7	"	.....	.....	.....	. ....	54647	"
....	.....	0·935	191·4	"	.....	. ..	.....	..... .	54649	"
....	.....	0·935	191·5	"	.....	.....	....	.... .	54651	"
....	....	0·936	192·1	"	... .	.....	.....	.....	54653	"
. ...	.....	0·934	192·1	"	.....	. .	....	....	54656	"
....	.....	0·934	192·1	"	.....	....	.. .	. .	54658	"
... ...	....	9·933	190·9	"	.....	....	....	....	54661	"
. .. .	.. ...	0·934	192·1	"	.....	....	....	..	54663	"
.....	.....	0·934	190·2	"	.....	...	. ..	....	54665	"
. ...	.....	0·934	192·1	"	...	.....	....	. ..	54668	"
J. B. COSGROVE, TEMP. INSPECTOR.										
. ...	1·4809	0·9275	180·0	Linseed	...	180·5	30 hrs.	3 days	61328	Doubtful position lo
... ...	1·4814	0·9333	192·1	"	...	189·3	30 "	3 "	61330	Genuine.
.. . . . .	1·4822	0·9340	191·8	"	...	196·7	48 "	3 "	61332	"
....	1·4814	0·9330	193·4	"	. .	190·8	48 "	3 "	61333	"
.. . . . .	1·4814	0·9334	191·7	"	.....	190·8	48 "	3 "	61336	"
. . . . .	1·4820	0·9342	191·4	"		197·7	48 "	3 "	61337	"
....	1·4811	0·9332	190·0	"	...	191·2	48 "	3 "	61341	"
.. . . . .	1·4820	0·9321	190·2	"		193·7	48 "	3 "	61342	"
.....	1·4816	0·9338	192·7	"		192·0	48 "	3 "	61343	"
. . .	1·4818	0·9337	191·1	"		191·0	30 "	3 "	61344	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents	Manufacturer,	Furnisher.
DISTRICT OF SASKATCHEWAN—							
1915.							
July 19	Raw Linseed Oil.	66397	Peart Bros., Regina	3 pts.	50	Unknown	
" 20	"	66399	John Goebel, Melville	3 "	50	Winnipeg Oil Co., Melville.	
" 20	"	66401	E. Smith, "	3 "	50	Can. Paint Co.	
" 20	"	66403	Wm. Anderson, "	3 "	40	Sherwin Williams Co., Winnipeg.	
" 21	"	66411	Chas. Beck, Yorktown	3 "	50	Winnipeg Oil Co., Yorktown.	
" 21	"	66414	Clemm & Lange, "	3 "	60	" "	
" 22	"	66417	Isbister & Pretty, Saskatoon	3 "	60	Marshall Wells, Winnipeg.	
" 23	"	66419	Fawcett Hardware Co. "	3 "	40	J. H. Ashdowne, Winnipeg.	
" 23	"	66420	Saskatoon Hardware Co., Saskatoon.	3 "	30	Winnipeg Oil Co., Saskatoon.	
" 23	"	66421	Burnett Bros., Saskatoon	3 "	30	J. H. Ashdowne, Winnipeg.	
DISTRICT OF ALBERTA—							
Aug. 10	Raw Linseed Oil.	52256	Northern Hardware Co., Edmonton.	3 pts.	40	Sherwin Williams Winnipeg.	
" 10	"	52257	Chown Hardware Co., Edmonton.	3 "	60	G. F. Stephen & Co., Winnipeg.	
" 10	"	52258	Somerville Hardware Co., Edmonton.	3 bots.	60	Marshall Wells Alberta Co, Edmonton.	
" 10	"	52259	Cameron Co. Ltd., Edmonton.	3 "	50	B. A. Paint Co., Edmonton.	
" 12	"	52260	G. D. Wallace, Ltd., Wetaskiwin.	3 "	50	J. H. Ashdown & Co., Winnipeg.	
" 13	"	52261	A. M. Campbell, Lacombe	3 "	40	" "	
" 13	"	52262	Morrison & Johnston Ltd., Lacombe.	3 "	35	Alta. Linseed Mills Medicine Hat.	
" 20	"	52263	J. H. Ashdown Hardware Co., Calgary.	3 "	30	" "	
" 20	"	52264	Marshall Hardware Ltd., Calgary.	3 "	60	Calgary Paint and Glass Co.	
" 20	"	52265	Hall Hardware Co., Calgary	3 "	25	Sherwin Williams Calgary.	

SESSIONAL PAPER No. 14

RAW LINSEED OIL.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive Index at 20° C.	Specific Gravity at 15·6° C.	Saponification Number.	Spot Test.	Unsaponifiable Matter.	Iodine Number.	Time of Drying at 70° C.	Time of Drying in air.		
L. H. HALL, INSPECTOR.										
	1·4810	0·9333	189·4	Linseed.		188·0	36 hrs.	3 days	66397	Genuine.
	1·4812	0·9330	190·3	"		188·6	30 "	3 "	66398	"
	1·4824	0·9355	194·0	"		197·4	30 "	3 "	66401	"
	1·4820	0·9345	191·7	"		184·1	36 "	3 "	66403	"
	1·4810	0·9323	190·3	"		187·0	48 "	3 "	66411	"
	1·4810	0·9325	192·2	"		185·3	48 "	3 "	66414	"
	1·4813	0·9337	191·7	"		191·5	48 "	3 "	66417	"
	1·4809	0·9336	191·8	"		188·3	48 "	3 "	66419	"
	1·4809	0·9335	192·7	"		187·0	30 "	3 "	66420	"
	1·4809	0·9333	193·1	"		189·0	30 "	3 "	66421	"
A. W. R. MARKLEY, INSPECTOR.										
	Refractive Index at 20° C.	Specific Gravity at 15·5° C.								
	1·4805	0·9356	188·0			185·0	13 hrs.		52256	Genuine.
	1·4802	0·9339	189·0			191·0	13 "		52257	"
	1·4800	0·9343	186·0			189·0	13 "		52258	"
	1·4795	0·9317	189·0			187·0	13 "		52259	"
	1·4800	0·9338	189·0			187·0	13 "		52260	"
	1·4808	0·9335	186·0			186·0	20 "		52261	"
	1·4802	0·9335	186·0			183·0	13 "		52262	"
	1·4807	0·9335	186·0			188·0	13 "		52263	"
	1·4803	0·9339	188·0			188·0	19 "		52264	"
	1·4796	0·9330	188·0			182·0	19 "		52265	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF ROCKY MOUNTAINS—				
1915.							
July 20	Raw Linseed Oil.	61846	N. Wilmes, Trail	3 pts.	60	Sherwin-Williams Co., Montreal.	... .
" 20	"	61853	Hunter Bros., Rossland	3 "	40	....	Jones & Dillingham, Spokane.
Aug. 6	"	61868	Vernon Hardware Co., Vernon.	3 "	60	....	Woods, Vallance & Leggett, Vancouver.
" 10	"	61873	Wilcox Hall, Kamloops ..	3 "	50	. .....	McLellan & McFeely, Vancouver.
" 10	"	61874	Marlatt & McKenzie, Kamloops.	3 "	50	B. A. Paint Co., Victoria.	.....
" 10	"	61877	N. S. Dalgleish, Kamloops..	3 "	50	Sherwin-Williams Co., Montreal.	....
" 16	"	61881	Merritt Mercantile Co., Merritt.	3 "	65	.....	Woods, Vallance & Leggett, Vancouver.
" 16	"	61884	Armstrong's Deptl. Stores, Merritt.	3 "	50	.....	E. G. Prior & Co., Victoria.
" 16	"	61885	J. A. Menzie's, Ltd., Merritt.	3 "	50	.....	McLellan & McFeely, Vancouver.
			DISTRICT OF VANCUOVER—				
July 28	Raw Linseed Oil.	55338	W. C. Stearman, 613 Granville St., Vancouver.	3 bots.	60	Sherwin-Williams Co., Montreal.	... .
" 28	"	55339	Hunter, Henderson Paint Co., 642 Granville St., Vancouver.	3 "	60	B. A. Paint Co., Victoria.	... .
" 29	"	55340	F. R. Begg & Co., Ltd., 167 Pender St. W., Vancouver.	3 "	50	A. Ramsay & Son, Montreal.	.....
" 29	"	55341	Imperial Varnish and Colour Co., Ltd., 42 Pender St. W., Vancouver.	3 "	60	Vendors.... ...	. .....
" 29	"	55342	Wood, Vallance & Leggett, 8 Cordova St. W., Vancouver.	3 "	40	Unknown	. . . .
" 30	"	55343	R. C. Jamieson & Co., 1073 Hamilton St., Vancouver.	3 "	40	Vendors.....	... .
" 30	"	55344	Crown Paint Co., 24 Cordova St. E., Vancouver.	3 "	50	Strathelyde Oil and Grease Works, Glasgow, Scot.	....
" 31	"	55345	Cunningham Hardware Co., Columbia St., New Westminster.	3 "	45	B. A. Paint Co., Victoria.	.....
" 31	"	55346	T. J. Trapp & Co., Ltd., Columbia St., New Westminster.	3 "	50	Unknown	....
" 31	"	55347	H. T. Kirk, Columbia St., New Westminster.	3 "	60	Alberta Linseed Oil Mills, Medicine Hat.	....

SESSIONAL PAPER No. 14

RAW LINSEED OIL.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive Index at 25° C.	Sp. Gr. at 15·5° C.	Saponification Number.	Spot Test.	Unsaponifiable Matter.	Iodine Number (Hanus).	Time of Drying at 70° C.	Time of Drying in Air.		
THOS. PARKER, INSPECTOR.										
	1·4795	0·9327	188·0			188·0	19 hrs.		61846	Genuine.
	1·4806	0·9337	189·0			189·0	19 "		61853	"
	1·4802	0·9341	189·0			188·0	19 "		61868	"
	1·4807	0·9335	188·0			189·0	19 "		61873	"
	1·4802	0·9337	189·0			186·0	19 "		61874	"
	1·4808	0·9348	189·0			190·0	19 "		61877	"
	1·4798	0·9330	190·0			183·0	24 "		61881	"
	1·4805	0·9338	189·0			188·0	19 "		61884	"
	1·4802	0·9338	190·0			186·0	19 "		61885	"
E. J. MORGAN, INSPECTOR.										
	1·4803	0·9350	189·0			193·0	13 hrs.		55338	Genuine.
	1·4801	0·9341	188·0			190·0	13 "		55339	"
	1·4800	0·9331	188·0			186·0	39 "		55340	"
	1·4790	0·9257	174·0		0·86	177·0	19 "		55341	Doubtful; suspected [illegible]
	1·4806	0·9339	190·0			181·0	19 "		55342	"
	1·4798	0·9333	190·0			186·0	19 "		55343	"
	1·4787	0·9320	188·0			175·0	20 "		55344	"
	1·4800	0·9339	188·0			186·0	19 "		55345	"
	1·4800	0·9333	186·0			185·0	19 "		55346	"
	1·4802	0·9342	189·0			188·0	19 "		55347	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher
			DISTRICT OF VICTORIA—				
1915.							
Sept. 24	Raw Linseed Oil.	66789	Mellon Bros., P.O. Box 382, Victoria.	3 pts.	60	.....	F. R. Begg, Ltd., Vancouver.
" 24	"	66791	The Staneland Co., 840 Fort St., Victoria.	3 "	75	....	Burrell & Co., London, Eng.
" 27	"	66794	H. Harkness & Son, 919 Pandora St., Victoria.	3 "	75	.....	B. A. Paint Co., Victoria.
" 27	"	66796	J. L. Forrester, 1304 Douglas St., Victoria.	3 "	45	....	" "
" 28	"	66798	P. McQuade & Son, Ltd., 1214 Wharf St., Victoria.	3 "	50	.....	Sherwin-Williams, Winnipeg.
" 28	"	66800	E. B. Marvin & Co., 1202 Wharf St., Victoria.	3 "	45	.....	B. A. Paint Co., Victoria.
" 29	"	66602	British-American Paint Co., Laurel Point, Victoria.	3 "	25	....	Alberta Linseed Oil Mills, Medicine Hat.
" 29	"	66604	The Melrose Co., Ltd., 618 Fort St., Victoria.	3 "	60	....	A. Ramsay & Co., Montreal.

SESSIONAL PAPER No. 14

RAW LINSEED OIL.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Refractive Index at 25° C.	Sp. Gr. at 15·5°C.	Saponification Number.	Spot Test.	Unsaponifiable Matter	Iodine Number (Hanus).	Time of Drying at 70° C.	Time of Drying in Air.		
D. O'SULLIVAN, INSPECTOR.										
.. ..	1·4800	0·9342	190·0	... .	.....	185·0	19 hrs.	.....	66789	Genuine.
.....	1·4792	0 9324	189·0	.....	....	178 0	19 „	...	66791	„
....	1·4802	0·9342	189·0	.....	....	182·0	19 „	....	66794	„
....	1 4802	0·9343	189 0	.....	....	183·0	19 „	....	66796	„
.....	1·4800	0·9338	189·0	.....	.....	185·0	19 „	...	66798	„
.....	1·4800	0·9339	189·0	.....	..	185 0	19 „	...	66800	„
....	1 4800	0·9335	190·0	....	.....	186 0	19 „	..	66602	„
... .	1 4805	0·9342	189 0	.....	....	189·0	19 „	....	66604	„

APPENDIX X.

BULLETIN No. 333—FORMALIN.

OTTAWA, January 21, 1916.

J. U. VINCENT, ESQ.
Deputy Minister of Inland Revenue.

SIR,—Solution of Formaldehyde (Liquor Formaldehydi) of the British Pharmacopœia is defined as an aqueous solution of Formaldehyde, containing in 100 millilitres (cubic centimetres) not less than 36 and not more than 38 grammes of formaldehyde. This is a quantitative statement of weight in volume.

Squires' Companion to the Pharmacopœia adds: "The commercial article *Formol* or *Formalin* is stated to be a 40 per cent solution. Since the specific gravity of this solution is about 1·080, it follows that a weight in volume solution of 36 per cent formaldehyde would represent only 33·3 per cent by weight in 100 parts by weight.

Manufacturers claim that they furnish a 40 per cent solution weight in volume; that is, a solution of 40 parts formaldehyde by weight in 40 parts of Formalin by volume. This is equivalent to a weight in weight percentage of about 37.

Formalin is largely used as a disinfectant, for all the purposes of this class of articles; but is perhaps chiefly in demand for treatment of seed grain.

The present report deals with sixty-eight (68) samples, purchased in October and November last, in consequence of complaints received by this department (L. 134431). Examination shows all of the samples to be genuine if regarded as Liquor Formaldehydi of the Pharmacopœia.

If regarded as 40 per cent solutions (weight in volume) of formaldehyde—said to be the commercial Formalin—four (4) samples are found to be slightly below requirements. Since, however, *Formalin* has no legal status under the Adulteration Act, I am unable to declare adulteration in these cases. The report, as a whole, shows that commercial Formalin, as sold in Canada, is of very good quality.

I beg to recommend publication of this report as Bulletin No. 333.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

BULLETIN No. 333—FORMALIN.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, As given by the Vendor.		Inspector's Report (Is not an expression of Opinion.)	Results of Analysis.		No. of Sample.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer,	Furnisher.		Formaldehyde by Weight.	Formaldehyde Weight in Volume.		
									p. c.	p. c.		
1915.												
Nov. 29	Formalin.	67271	J. A. Harte, 118 Notre Dame St., West, Montreal	12 ozs.	75	Lyman-Knox Co..	. .....	..... .	36·6	40·3	67271	Meets legal requirements.
" 29	" ..	67272	Leduc's Drug Store, Chaboillez Square, Montreal	12 "	60	Unknown.....	....	... .	39·2	43·1	67272	"
" 29	" ..	67273	A. LeBeau, 465 St. James Square, Montreal.	9 "	75	Lymans Ltd.....	.....	.....	38·6	42·4	67273	"
" 29	" ..	67274	National Drug & Chemical Co., Montreal.	12 "	30	Vendor.....	.....	....	37·6	41·3	67274	"
" 29	" ..	67275	Chas. E. Frosst & Co., Montreal.	3bots	100	"	.....	....	37 2	40·9	67275	"
" 29	" ..	67276	Chapman-Dart Co., Montreal.	12 ozs.	50	Unknown.....	....	....	38·4	42·2	67276	"
" 29	" ..	67277	Parke-Davis & Co., Montreal.	12 "	40	Vendors	....	.....	40·4	44·4	67277	"
" 29	" ..	67278	Lyman-Knox & Co., Montreal.	12 "	27	"	.....	..... .	39·2	43·1	67278	"
" 29	" ..	67279	J. A. D. Gadbout, 54 Craig St., West, Montreal.	12 "	50	Lymans Ltd .. .	.. ..	.....	36·0	39·6	67279	"
" 29	" ..	67280	Pharmacie Robert, Craig & St., Lawrence St., Montreal.	12 "	75	National Drug & Chemical Co.	.....	.....	37·2	40 9	67280	"

DISTRICT OF MONTREAL—D. J. KEARNEY, INSPECTOR.

DISTRICT OF TORONTO—H. J. DAGER, INSPECTOR.

Oct.	12	Formalin	[illegible]	T. J. Watson, Stayner ..	1 lb..	30	.....	National Drug & Chemical Co. of Canada.	.....	37·6	41·3	69955	Meets Legal Requirements.
"	13	"	[illegible]	Jury & Gregory, Collingwood.	1 " ..	50	.....	Drug Trading Co., Toronto.	.....	38·4	42·2	69956	"
"	14	"	[illegible]	Dr. E. L. Connolly, Colingwood.	1 " ..	50	.....	" ..	.....	36·4	40·0	69957	"
"	14	"	[illegible]	H. J. Robertson, Barrie ..	1 " ..	50	.....	National Drug & Chemical Co. of Canada.	.....	36·8	40·5	69958	"
"	14	"	[illegible]	Geo. Monkman, Barrie .	1 " ..	40	Standard Chemical Co., Ltd., Toronto	.....	.....	37·2	40·9	69959	"
"	15	"	[illegible]	A. E. Patterson, Allandale	1 " ..	40	" ...	.....	.....	34·2	31·7	69960	Slightly below, accepted formalin strength.
"	15	"	[illegible]	W. J. McGuire, Allandale.	1 " ..	50	Unknown.	.....	.....	37·8	41·6	69961	Meets Legal Requirements.
"	20	"	[illegible]	Dr. P. A. McDonald, Perrytang	1 " ..	35	.....	E. G. West & Co., Toronto.	.....	37·6	41·3	69962	"
"	21	"	[illegible]	H. S. McCartney, Midland	1 " ..	35	.....	National Drug & Chemical Co., Ltd. Hamilton.	.....	37·6	41·3	69963	"
"	21	"	[illegible]	J. S. Fraleigh, Midland...	1 " ..	35	The Standard Chemical Co., Ltd., Toronto.	.....	.....	38·0	41·8	69964	"

DISTRICT OF HAMILTON—J. J. COSTIGAN, ACTING INSPECTOR.

Oct.	1	Formalin	[illegible]	V. E. Christian, St. James St. N., Hamilton, Ont.	1 lb.	75	H. K. Wampole Co., Ltd.	.....	.....	"Formulid."	.....	58436	
"	2	"	58437	Porter's Drug Store, 244 St. James St. N., Hamilton, Ont.	1 "	35	.....	.....	.....	35·8	39·4	58437	Meets legal requirements.
"	2	"	[illegible]	James M. Walker, St. Paul St., St. Catharines, Ont.	1 " ..	50	Standard Chem. Co., Ltd.	.....	.....	40·4	44·4	58438	"
"	4	"	[illegible]	F. W. Jeff, King St., St. Catharines, Ont.	1 " ..	50	N. D. and Chem. Co., Ltd.	.....	.....	36·6	40·3	58439	"
"	4	"	[illegible]	Allin & McNamara, 39 Queen St., St. Catharines, Ont.	1 " ..	50	H. K. Wampole Co., Ltd.	.....	.....	38·0	41·8	58440	"
"	4	"	[illegible]	Cecil A. C. Cameron, Colborne St., Brantford, Ont.	1 " ..	50	Nat. Drug and Chem. Co., Ltd., Hamilton	.....	.....	38·6	42·4	58441	"
"	4	"	[illegible]	Gordon Brandon, Dalhousie St., Brantford, Ont.	1 " ..	50	.....	.....	.....	39·0	42·9	58442	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.		No. of Sample.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		Formaldehyde by Weight.	Formaldehyde Weight in Volume.		
DISTRICT OF HAMILTON—J. B. COSTIGAN, ACTING INSPECTOR—*Concluded.*												
1915.									p. c.	p. c.		
Oct. 4	Formalin.	58443	A. W. Smiley, Market St., Brantford, Ont.	1 lb.	40				38·2	42·0	58443	Meets legal requirements.
" 4	"	58444	S. Tapscott & Co., 24 Market St., Brantford, Ont.	1 "	50	Nat. Drug and Chem. Co., Ltd.			36·6	40·3	58444	
" 4	"	58445	T. George Bohs, Colborne St., Brantford, Ont.	1 "	50				38·6	42·4	58445	"
DISTRICT OF MANITOBA—J. B. COSGROVE, TEMPORARY INSPECTOR.												
Oct. 5	Formalin.	61416	McLellan Pharmacy, Selkirk Ave. and McKenzie, Winnipeg.	1½ lb.	60		Martin Bole & Wynn Co., Winnipeg.		35·10	38·6	61416	Slightly below accepted formalin strength.
" 5	"	61417	H. D. Campbell, 988 Main St., Winnipeg.	1½ "	60		"		35·87	40·4	61417	Meets legal requirements.
" 6	"	61418	J. K. Brown, 308 Nairn Ave., Elmwood, Winnipeg.	1 "	35		Nat. Drug Co., Winnipeg.		36·14	39·7	61418	"
" 6	"	61419	Kildonan Pharmacy, 2061 Hespler Ave., Winnipeg.	1 "	50		Martin Bole & Wynn Co., Winnipeg.		36·88	40·5	61419	"
" 6	"	61420	Louis A. Rice, 1693½ Portage Ave., Winnipeg.	12 oz.	40				36·24	39·8	61420	"
" 6	"	61421	Ralph Magee, 1849½ Portage Ave., Winnipeg.	lb.	40		Unknown		35·15	38·6	61421	Slightly below accepted formalin strength.

"	7	"	61422	A. T. Brocking, 116 Osborne St., Fort Rouge, Winnipeg.	1 "	60		Nat. Drug Co., Winnipeg.		35·75	39·3	61422	Meets legal requirements.
"	7	"	61423	H. L. Brown, 175 Osborne St., Fort Rouge, Winnipeg.	1 "	75		Martin Bole & Wynn Co., Winnipeg.		36·93	40·6	61423	"
"	7	"	61424	W. B. Davis, 217 Nassau St., Fort Rouge, Winnipeg.	1 "	50		Nat. Drug Co., Winnipeg.		36·14	39·7	61424	"
"	7	"	61425	Poyntz Co., Westminster Ave., Winnipeg.	1 "	45		Bole & Wynn Co.		36·13	39·7	61425	"

DISTRICT OF SASKATCHEWAN—L. H. HALL, INSPECTOR.

Oct.	5	Formalin	66437	Moosejaw Drug and Stationery, Moosejaw.	1 lb.	20	Standard Chem. Co. Winnipeg.			36·91	40·6	66437	Meets legal requirements.
"	5	"	66438	F. Marlatt, Moosejaw	1 "	25	"			39·10	43·0	66438	"
"	6	"	66439	H. A. Davidson, Moosejaw.	1 "	25	"			36·46	40·1	66439	"
"	6	"	66440	E. L. Colling, Moosejaw.	1 "	25	"			36·96	40·6	66440	"

DISTRICT OF ALBERTA—A. W. R. MARKLEY, INSPECTOR.

Nov.	16	Formalin	52271	E. M. Cawker, Medicine Hat.	2 bots.	50	Standard Chem., Iron and Lumber Co., Toronto.			36·8	40·4	52271	Meets legal requirements.
"	16	"	52272	[illegible], Medicine Hat	3 "	50	Standard Chem. Co., Winnipeg.			36·5	40·1	52272	"
"	17	"	52273	Alberta Drug and Stationery Co., Lethbridge.	3 "	40	J. D. Higginbotham & Co., Lethbridge.			37·0	40·7	52273	"
"	17	"	52274	Kemp & Allen Co., Ltd., Lethbridge.	3 "	60	Nat. Drug and Chem. Co., Calgary.			36·8	40·4	52274	"
"	18	"	52275	J. D. Higginbotham & Co., Ltd., Lethbridge.	3 "	50	Standard Chem., Iron and Lumber Co., Winnipeg			37·3	41·0	52275	"
"	18	"	52276	T. H. McCready, Lethbridge.	3 "	35	"			36·7	40·3	52276	"
"	18	"	52277	[illegible] Fischer Drug Co., Ltd., Calgary	3 "	45	Nat. Drug and Chem. Co., Calgary.			37·7	41·4	52277	"

BULLETIN No. 333—FORMALIN.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.		No. of Sample.	Remarks and Opinion of the Chief Analyst.
				Quantity.	Cents.	Manufacturer.	Furnisher.		Formaldehyde by Weight.	Formaldehyde, Weight in Volume.		
DISTRICT OF ALBERTA—A. W. MARKLEY, INSPECTOR—*Concluded.*												
1915.												
Nov. 19	Formalin.	52278	MacFarlane Drug Stores, Calgary.	3 bots.	45	Standard Chem., Iron and Lumber Co., Winnipeg.	.....	.....	36·6	40·2	52278	Meets legal requirements.
" 19	"	52279	McDermid Drug Co., Ltd., Calgary.	3 "	35	"	.....	.....	37·3	41·0	52279	"
" 19	"	52280	Oliver Bros., Ltd., Calgary	3 "	35	Nat. Drug and Chem. Co., Winnipeg.	.....	.....	37·0	40·7	52280	"
DISTRICT OF ROCKY MOUNTAINS—THOS. PARKER, INSPECTOR.												
Oct. 18	Formalin.	61887	Fort George Drug Co., Prince George.	1 lb..	75	H. K. Wampole Co., Perth, Ont.	.....	.....	37·6	41·3	61887	Meets legal requirements.
Nov. 16	"	61894	A. F. Rankine Merritt, B.C.	1 "	65	Nat. Drug and Chem. Co., Vancouver.	.....	.....	35·9	39·4	61894	"
Dec. 6	"	68104	Woodland & Quinn, Grand Forks	1 "	65	.....	Nat. Drug and Chem. Co., Vancouver.	.....	34·9	38·3	68104	Slightly below accepted formalin strength.
" 6	"	68105	The Mann Drug Co., Grand Forks.	1 "	65	Nat. Drug and Chem. Co., Vancouver.	.....	.....	35·9	39·4	68105	Meets legal requirements.

DISTRICT OF VANCOUVER—E. J. MORGAN, INSPECTOR.

1915.												
									p.c.	p.c.		
Oct. 30	Formalin..	55386	Marrett & Reid, 157 Hastings St., West, Vanc., BC.	1 lb.	75	.....	J. A. Tepoorten, Ltd., Vanc. B.C.	.....	36·2	39·8	55386	Meets legal requirements.
" 30	" ..	55387	Woodward Dept. Stores, Ltd., Vanc., B.C.	1 "	50	Standard Chem. Iron and Lumber Co., Montreal.	.....	.....	36·2	39·8	55387	"
Nov. 1	" ..	55388	Owl Drug Co., Ltd., Granville and Dunsmuir Sts., Vanc., B.C.	1 "	50	"	.....	.....	36·5	40·1	55388	"
" 1	" ..	55389	Burns Drug Co., Ltd. 732 Granville St., Vanc., B.C.	1 "	75	.....	J. A. Tepoorten, Ltd., Vanc., B.C,	.....	36·0	39·6	55389	"
" 1	" ..	55390	W. M. Harrison & Co., Ltd., Granville and Robson Sts., Vanc., B.C.	1 "	75	Standard Chem. Iron and Lumber Co., Montreal.	.....	.....	36·8	40·4	55390	"
" 1	" ..	55391	Campbells Ltd., Hasting and Granville Sts., Vanc., B.C.	1 "	75	"	.....	.....	38·1	41·9	55391	"
" 2	" ..	55392	Woods Pharmacy, 601 Hasting St., Vanc., B.C.	1 "	50	.....	J. A. Tapoorten, Ltd., Vanc., B.C.	.....	37·5	41·2	55392	"
" 2	" ..	55393	D. S. Curtis & Co., 659 Columbia St., New Westminster, B.C.	1 "	75	Unknown.....	.....	.....	37·0	40·7	55393	"
" 2	" ..	55394	F. T. Hill, 628 Columbia St., New Westminster, B.C.	1 "	50	.....	Nat. Drug & Chem. Co.	.....	36·5	40·1	55394	"
" 2	" ..	55395	C. S. Davis, 42 Sixth St. New Westminster.	1 "	50	Standard Chem. Iron and Lumber Co., Montreal.	.....	.....	36·2	39·8	55395	"

APPENDIX Y.

BULLETIN No. 334—BUTTER.

OTTAWA, January 28, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to hand you a report upon one hundred and thirty-eight (138) samples of Butter, purchased by our inspectors in October, November and December of last year.

The results of this inspection may be recapitulated as below:—

Found genuine	122	samples.
" adulterated	4	"
" slightly below standard requirements	12	"
Total	138	"

In no instance has any fat other than milk fat been found.

Water is required not to exceed 16 per cent by weight. Even this amount of water is in excess of the normal content found in good butter. This fact may be verified by a study of the accompanying tables, as well as by noting previous reports. (See Bulletins 238 and 281.)

Butter fat is required to be not less than 82·5 per cent of the weight of the butter. Objection has been taken to this requirement, as excessive; and it is undeniable that, if the other components of butter are present in maximum legalized amount, the fat cannot reach 82·5 per cent. Thus if water be 16 per cent, salt 6 per cent (which may be regarded as the highest percentage tolerated by the palate) and curd 1 per cent the butter fat content cannot reach more than 77 per cent.

An inspection of our reports upon butter shows, however, that genuine butter is seldom if ever found to show all along the line maximum amounts of other substances than fat. In the present report, nearly 90 per cent of the samples reported contain more than 82·5 per cent of fat; and most of them notably exceed this limit. It could only be by strict supervision, with intent, that water, salt and curd could be adjusted to reach legal maxima.

Slight discrepancies in twelve (12) samples, herein reported, are regarded as negligible, and are not judged as adulterated.

I beg to recommend publication of this report as Bulletin No. 334.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF NOVA SCOTIA—				
1915.							
Oct. 21	Butter.....	64286	Rooney & Lovett, Halifax..	1½ lb.	57	Brookfield Creamery Co., Brookfield, N.S.	Manufacturer...
" 21	" . . .	64287	Smith & Proctor, " ..	1½ "	50	....	
" 27	"	64288	A. D. Bruce, " ..	1½ "	57	Lahave Creamery Co., Bridgewater, N.S.	R. B. Colwell, Halifax.
" 28	"	64289	P. T. Shea, " ..	1½ "	57	Crapaud Creamery Co., Crapaud, P.E.I.	Manufacturer...
Dec. 7	"	64290	C. J. Cochrane, Windsor...	2 "	70	Meadowbank Creamery Co., Hamilton, Ont.	F. W. Fearmen Co., Hamilton, Ont.
" 7	"	64291	Lamont & Steadman, Kentville.	1½ "	45	S. C. McDonell, Canaan, N.S.	Manufacturer...
" 13	"	64292	B. O. Bishop, Dartmouth.	1½ "	57	Robt. Ramsay, Steviacka, N.S.	" ..
" 13	"	64293	G. A. Orman, " ..	1½ "	60	Lahave Creamery Co., Bridgewater, N.S.	R. B. Colwell, Halifax.
" 13	"	64294	Coleman & Eisener, Dartmouth.	1½ "	60	Acadia Dairy Co. Wolfville.	Smith & Proctor Halifax.
			DISTRICT OF PRINCE EDWARD ISLAND—				
Oct. 11	Butter.....	60378	P. J. Berrigan, Dunedin Lot 31.	1½ lb.	40	M. & K. McNeill, New Dunedin.	....
" 13	"	60379	Beer & Goff, Charlottetown.	1½ "	48	Dunstaffnage Ch'se & Butter Factory, Dunstaffnage.	.....
" 13	"	60380	J. C. Crabbe, " ..	1½ "	42	Edgar Easter, Hampshire, P.E.I.	.....
" 14	"	60381	P. A. Smith, " ..	1½ "	45	Mrs. Stead, Wheatley River, P.E.I	.....
" 14	" ...	60382	" " ..	1½ "	45	....	Market Dairy, Charlottetown
			DISTRICT OF NEW BRUNSWICK—				
Oct 7	Butter.....	66166	Walter Gilbert, St. John, N.B.	1 lb..	54	Prince Crest Farm, St. John Co.	....
" 12	"	66167	McBeath's Grocery, St. John, N.B.	1½ "	47	....	Dearborn & Co., St. John.
" 14	"	66168	People's Dairy, R. H. Crothers, prop., St. John, N.B.	1½ "	54	Vendor	....
" 14	"	66169	G. L. Craig, St. John, N.B.	1½ "	51	....	W. Fenwick, City Market, St. John.
" 19	"	66170	M. E. Doohan, Fredericton.	1½ "	90	Unknown	Unknown .....
" 19	"	66171	A. E. Eardley, "	1½ "	55	Chas. Kee, Island View, York Co., N.B.	.....

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BUTTER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Curd.	Water.	Ash.	Butyro-refractometer at 40° C.	Fat by difference.		
R. J. WAUGH, INSPECTOR.							
	p. c.	p. c.	p. c.		p. c.		
		11·55	3·86	44·1	84·59	64286	Genuine.
		14·11	3·02	43·4	82·87	64287	"
		13 28	4·50	43·0	82·22	64288	"
		12·74	2·78	43·9	84·48	64289	"
		11·64	2 50	42 9	85·86	64290	"
		14·11	1 95	41·6	83 94	64291	"
		15·16	1·75	41·7	83 09	64292	"
		14 18	4·10	41·5	81·72	64293	"
		12·92	1·11	41·4	85·94	64294	"
WM. A. WEEKS, INSPECTOR.							
		8·22	2 05	42 7	89·73	60378	Genuine.
		10 67	2 73	43 1	86 60	60379	"
		11·70	2 31	42·8	85 99	60380	"
		10 62	2 18	43 2	87 20	60381	"
		7 98	2 10	43 6	89 92	60382	"
JOHN C. FERGUSON, INSPECTOR.							
Slab		16 30	3 96	43 2	79 74	66166	Water slightly in excess, and fat correspondingly low.
Tub		9 21	3 13	42 9	87 66	66167	Genuine.
Prints		11 73	2 70	43 8	85 57	66168	"
Box		12 43	1 21	44 9	86 36	66169	"
Dairy Bricks		9 37	5 86	44 3	84 83	66170	"
" Prints		10 74	3 93	44 1	85 33	66171	

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF NEW BRUNSWICK—				
1915.							
Oct. 20	Butter.....	66172	Woodstock Creamery Co., Woodstock.	1 print	60	Vendors.....	
26	"	66173	Maritime Dairy Co., Sussex, N.B.	1½ lb.	55	"	
" 26	"	66174	Mills Eveleigh Co., Maple-town, Sussex.	1½ "	55	Sussex Cheese & ButterCo.,Sussex	
" 27	"	66175	J. S. Dunlop, Moncton.....	1½ "	45	John Hennessy Malden, Westmoreland Co., N.B.	
			DISTRICT OF QUEBEC CITY—				
Oct. 4	Beurre	56536	A. Drolet, 714 St. Valier, Quebec.	2 lb.	70	Edmond Coté, Quebec.	
" 4	"	56537	J. Art. Bedard, 728 St. Valier, Quebec.	2 "	70	S. Gagnon, Quebec.	
" 4	"	56538	P. Larberge, 465 St. François St., Quebec.	2 "	70	J. B. Renaud, Quebec.	
" 4	"	56539	M. Tremblay, 8 St. Agnes, Quebec.	2 "	68	Emond Coté, Quebec.	
" 6	"	56540	Theo. Lebel, 86 Rue du Rocher, Quebec.	2 "	68	Ed. Sylvain	
" 6	"	56541	Jeremie Pepin, 132 Rue Massue, Quebec.	2 "	70	J. B. Renaud.....	
" 7	"	56543	O. Bacon, 28 Rue Hermine, Quebec.	2 "	70	Emond & Coté.....	
" 7	"	56544	E. Robitaille, 48 Rue Victoria, Quebec.	2 "	66	Dom. Fish and Fruit.	
" 6	"	56549	Jos. Vezina, 914 St. Valier, Quebec.	2 "	74	Dom. Fish Co	
" 7	"	56551	A. Larn, 35 Victoria, Quebec.	2 "	70	J. B. Renaud.....	
			DISTRICT OF QUEBEC PROVINCE—				
Oct. 13	Beurre	4427	Frs. Morin, Ste. Claire	1½ lb.	51	Vendor	
" 14	"	4429	Arthur Fradet, Armah.....	1½ "	55	P. Beaulieu, St. Philemon Co., Bellechasse.	
" 1	"	330	Dme. Joseph Beauchamp, Ste. Jerome.	1½ "	48	E. Brosseau, Rivière à Gagnon.	
" 1	"	332	Chs. Elie Laflamme, Ste. Jerome.	2 "	64	J. B. Lanthier....	
" 1	"	334	T. Lapointe, Ste. Jerome..	1½ "	51	Delphis Dion, Lachapelle.	
" 2	"	336	Damien Hetu, Ste. Agathe des Monts.	1½ "	64	Beurre Lacosse....	
" 2	"	337	Hormisdas Monette, Ste. Agathe des Monts.	1½ "	60	Jos. St. Louis.....	

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BUTTER.

Inspector's Report (Is not an expression of opinion).	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Curd.	Water.	Ash.	Butyro-refractometer at 40° C.	Fat by Difference.		
Concluded.							
	p. c.	p. c.	p. c.		p. c.		
Prints	.....	13·10	2·60	43·9	84·30	66172	Genuine.
"	.....	9·27	3·27	43·7	87·46	66173	"
.....	.....	9·80	2·58	43·6	87·62	66174	"
.....	.....	14·15	7·42	43·0	78·43	66175	"
F. X. W. E. BELAND, INSPECTOR.							
.....	.....	14·52	3·12	43·5	82·36	56536	Genuine.
.....	.....	11·37	4·65	43·4	83·98	56537	"
.....	.....	12·15	2·96	43·0	84·89	56538	"
.....	.....	13·18	1·77	43·4	85·05	56539	"
.....	.....	11·75	5·90	44·3	82·35	56540	"
.....	.....	10·25	1·87	42·7	87·88	56541	"
.....	.....	12·45	2·36	43·5	85·19	56543	"
.....	.....	21·49	1·79	41·5	76·72	56544	Water content high; fat low. Adulterated
.....	.....	14·00	2·04	43·0	83·96	56549	Genuine.
.....	.....	12·50	2·80	43·3	84·70	56551	"
O. BROCHU AND N. CADIEUX, TEMPORARY INSPECTORS.							
.....	.....	7·64	1·03	41·6	91·33	4427	Genuine.
.....	.....	14·61	3·29	41·6	82·10	4428	"
.....	.....	11·76	3·05	42·2	85·19	330	"
		14·85	1·64	41·8	83·51	332	"
.....	.....	14·36	5·28	42·0	80·36	304	Fat slightly below standard.
.....	.....	12·37	1·90	44·2	85·73	326	Genuine.
.....	.....	12·10	2·20	41·8	85·70	307	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF EASTERN TOWNSHIPS—							
1915.							
Oct. 25	Butter.....	58456	W. W. Emery, Sherbrooke..	1½ lb.	50	....	Matthaws Blackwell Co., Ltd.
" 25	"	58457	" "	1½ "	54	.....	....
" 25	"	58458	Edmond Lanctot, Sherbrooke.	1½ "	53	....	....
" 25	"	58459	Joseph Thibault, Sherbrooke	1½ "	52	....	... .
" 25	"	58460	" "	1½ "	55	Raboin & Raboin, Compton, P. Q.	.....
" 25	"	58461	L. Pinard, Sherbrooke	2 bl'ks	70	A. Bedard, Stoke Centre, P.Q.	....
" 25	"	58463	C. J. Lane & Sons, Lennoxville.	2 "	66	F. R. Bartlette, Lennoxville.	.....
" 25	"	58464	McMurray & Hall, Lennox-	1½ "	64	....	....
" 25	"	58465	George Bolduc, Lennoxville.	1½ "	48	....	.....
DISTRICT OF OTTAWA—							
Sept. 29	Butter.....	70511	J. J. Hourigan, Almonte...	1½ lbs.	50	Cobden Creamery.	....
Oct. 1	"	70512	J. E. Cook, Winchester	1¼ " .	50	Alex. Hess, Williamsburg, Ont.	....
" 1	"	70513	Chester Casselman, Chesterville.	1½ " .	50	The Harris Abatair Co., Toronto	.. ..
" 1	"	70514	T. McGee, Chesterville.....	1½ " .	51	The Whyte Packing Co., Toronto.	....
" 7	"	70515	Matthews-Blackwell Ltd., Ottawa.	1½ " .	47	Moyneurs Ltd.. Ottawa.	.....
" 7	"	70516	E. & J. Gougeon. Ottawa..	1¼ " .	50	Davies, Toronto..	....
" 7	"	70517	J. Dover & Sons, Ottawa...	1½ " .	51	....	Hodgson's Bros., Montreal.
" 7	"	70518	Moyneurs Ltd., Ottawa	1½ " .	50	Vendors	.....
" 12	"	70519	The A. E. Rea Co. Ltd., Ottawa.	1½ " .	56	"	.....
" 12	"	70520	" "	1½ " .	56	Valley Creamery of Ottawa, Ottawa.	.....
" 13	"	70524	Soublier& Tremblay, Hull..	1½ " .	51	Ottawa Dairy Co., Ottawa.	....
" 14	"	70525	M. J. Ade, Main St., Ottawa East.	1½ " .	54	" ...	.....
" 14	" .	70597	The Ottawa Dairy Co., Ltd. Ottawa.	1½ " .	53	Vendors.....	....

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BUTTER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Curd.	Water.	Ash.	Butyro-refractometer at 40° C.	Fat by difference.		
J. J. COSTIGAN, ACTING INSPECTOR.							
	p. c.	p. c.	p. c.		p. c.		
Dairy	.....	14·29	4·50	41·0	81·21	58456	Genuine.
Creamery..... ..	.....	13·52	3·46	42·5	83·01	58457	"
Choice Dairy.....	.....	14·08	1·93	42·2	83·99	58458	"
Dairy.....	.....	10·97	2·50	41·8	86·33	58459	"
Creamery	....	13·44	2·09	42·4	84·47	58460	"
... .	....	12·22	3·96	42·3	83·82	58461	"
Dairy.....	. .....	9·98	2·46	43·4	87·56	58463	"
....	.....	13·11	1·90	41·8	84·99	58464	"
....	....	14·64	2·33	41·6	83·03	58465	"
J. A. RICKEY, INSPECTOR							
Creamery-.	.....	15·08	2·93	42·7	81·99	70511	Genuine.
Whey....	.....	10·73	1·50	42·3	87·77	70512	"
Creamery.	... ..	13·08	1·33	43·2	85·59	70513	"
"	.... ..	11·71	2·63	40·6	85·66	70514	"
Dairy	.....	8·54	5·75	41·3	85·71	70515	"
"	.....	15·46	2·98	40·3	81·56	70516	"
Creamery.....	.....	12·80	1·91	42·4	85·29	70517	"
Creamery Chateau ..	..	12·21	2·51	42·2	85·28	70518	"
Creamery.	...	11·55	2·02	42·2	86·43	70519	"
"	.....	12·55	3·29	43·0	84·16	70520	"
"	.....	11·89	4·50	41·0	83·61	70521	"
"	.....	13·39	3·80	42·3	82·81	70522	"
" Ottawa Dairy	.....	12·73	3·60	42·2	83·67	70507	"

Date of Collections.	Nature of Sample.	Number of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF KINGSTON—
1915.							
Oct. 27	Butter.....	70266	W. E. Hopkinson, Kingston	1 lb..	38	James Stonehouse, Port Perry Creamery.	.....
" 27	"	70267	Geo. Gibson, Kingston.....	1 " .	32	Gold Spring Fresh Dairy.	.....
" 27	"	70268	L. W. Murphy. Kingston .	1 " ..	35	Meadow-Brook Creamery.	.....
" 27	"	70269	Wm. Davies, Kingston.....	1 " ..	33	Mayflower Dairy..	.....
" 27	"	70270	Ben Lee, Kingston..... ..	1 " ..	38	Eastern Dairy School, Kingston	... .
							DISTRICT OF TORONTO—
Oct. 12	Butter.	69945	C. J. McRae, Stayner.....	2 lbs.	54	M. G. Knetchel, Stayner.	.....
" 13	" ..	69946	Darrouch Bros., Collingwood.	1½ "	42	Mrs. Knuff	....
" 13	" ..	69947	Cauthiers & Currie, Collingwood.	1½ "	45	Mrs. Wm. Neil, Nottawa.	....
" 14	..	69948	E. Armstrong, Barrie	1 "	32	Peter Kerns, Barrie	....
" 15	" ..	69949	J. M. Bothwell Estate, Allendale	2 "	60	Mrs. Gibson	... .
" 15	" ..	69950	H. C. Channon, Barrie....	1½ "	45	Mrs. I. H, Luke, Barrie.	....
" 19	" ..	69951	M. L. Lawson, Elmvale....	2 "	54	Mr. B. French, Waveley.	....
" 20	" ..	69952	D. A. Lahey & Co., Penetang.	1½ "	45	Mrs. H. Richardson, Fergusonville.	....
" 20	" ..	69953	H. J. Kiettle, Midland.....	1½ "	48	Mrs. John McMahon, Midland.	....
" 20	" ..	69954	A. D. Parsons, Midland ..	2 "	62	Mrs. John Farquharson, Elliott-Corners.	.....
							DISTRICT OF HAMILTON—J. J. COSTIGAN,
Oct. 1	Butter.	58406	J. D. Harrison, City Market, Hamilton.	1½ lbs.	48	....	.....
" 1	" ..	58407	A. J. Lambert, City Market Hamilton.	1½ "	48	C. W. Kaufman...	.. ..
" 1	" ..	58408	" "	1½ "	45	....	.....
" 1	" ..	58409	M. Freeman, City Market, Hamilton.	1½ "	48	....	....
" 1	" ..	58410	" "	1½ "	45	.. ..	.. ..
" 1	" ..	58411	D. Green, City Market, Hamilton.	1½ "	48	R. Bond, York....	.. ..
" 1	" ..	58412	" "	1½ "	42	....	....
" 1	" ..	58413	A. Norman, City Market, Hamilton.	1½ "	52	John Scott, Exeter.	....
" 2	" ..	58414	O. W. Bessey, City Market, Hamilton.	1½ "	45	R. J. McGee, Auburn.	. ...
" 2	" ..	58415	Dundalk Produce Co., City Market, Hamilton.	1½ "	49	.. ..	....

SESSIONAL PAPER No. 14

BUTTER.

Inspector's Report. (Is not an expression of opinion.	Results of Analysis. Curd.	Water.	Ash.	Butyro-refractometer at 40° C.	Fat by difference.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
JAMES HOGAN, INSPECTOR.							
	p. c.	p. c.	p. c.		p. c.		
.....	.....	15·78	3·45	42·9	80·77	70266	Fat, slightly below standard
.....	.....	10·67	3·71	42·3	85·62	70267	Genuine.
.....	.....	12·25	2·97	42·6	84·78	70268	"
.....	.....	10·47	4·98	41·3	84·55	70269	"
.....	.....	14·46	2·95	42·8	82·59	70270	"
H. J. DAGER, INSPECTOR.							
.....	.....	10·98	4·42	42·8	84·60	69945	Genuine.
Dairy	.....	6·88	3·27	43·1	89.85	69946	"
.....	.....	12·45	3·71	43.3	83·84	69947	"
Choice Dairy	.....	14·34	6·82	42·3	78·84	69948	Fat too low, due to excess of salt.
"	.....	11·65	2·41	43·1	85·94	69949	Genuine.
Dairy.....	.....	11·76	2·54	42·4	85·70	69950	"
Choice Dairy.....	.....	11·03	7·85	43·0	81·12	69951	"
.....	.....	10·46	2·34	42·6	87·20	69952	"
.....	.....	10·44	6·15	40·6	83·41	69953	"
Dairy	.....	8·28	3·63	43·0	88·09	69954	"
ACTING INSPECTOR.							
Dairy.....	.....	11·42	3·54	42·0	85·04	58406	Genuine.
Creamery	.....	15·77	3·52	42·2	80·71	58407	"
Dairy		11·47	0·47	42·2	88·06	58408	"
Creamery.....	.....	15·72	1·76	42·0	82·52	58409	"
Dairy.....	.....	8·43	2·80	43·4	88·77	58410	"
Creamery.....	.....	15·45	1·91	42·7	82·64	58411	"
Dairy	.....	14·04	1·35	42·6	84·61	58412	"
Creamery	.....	15·13	2·37	43·6	82·50	58413	"
Dairy	.....	16·20	2·15	42·1	81·65	58414	Water slightly in excess of standard.
Creamery	.....	15·03	1·81	43·1	83·16	58415	Genuine.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
						DISTRICT OF WINDSOR—	
1915.							
Oct. 13	Butter.....	54691	G. W. Sawyer, Leamington.	1½ lbs.	48	Harrow Creamery, Harrow.	....
" 13	"	54694	Robinson Bros., Leamington	1½ "	50	Harrow Butter & Cheese Co.	.....
" 13	"	54501	C. W. Hendershot, Ltd., Kingsville.	2 "	66	Farmer's Friend Creamery, Essex.	.....
" 13	"	54502	Munroe Wigle, Kingsville..	1½ "	48	Harrow Butter & Cheese Factory, Harrow.	.. ..
" 13	"	54503	T. J. Salmoni, Kingsville...	1½ "	50	" " ..	.....
						DISTRICT OF MANITOBA—	
Oct. 15	Butter.....	61401	Roy Robertson, Melita.....	1½ lbs.	50	Melita Creamery Co., Melita.	....
" 20	"	61402	C. H. Manishin, 519 Armetta Ave., W., Kildonan.	1½ "	55	Swifts Canadian Co., Winnipeg.	.....
" 20	"	61403	H. R. Beaven, 530 Polson Ave., Winnipeg.	1½ "	50	Shoal Lake Co., Manitoba:	.....
" 20	"	61405	Booth Bristow, 545 Bannerman Ave., Winnipeg.	1½ "	55	Brookfield Co., Winnipeg.	....
" 21	"	61407	J. Donnely & Son, 123 Marion St., Norwood.	2 "	75	Devon Dale Co., Winnipeg.	.....
" 21	"	61408	Collin, C. O. D. Store, 13 Provencher Ave., St. Boniface.	1½ "	55	City Dairy Co., Winnipeg.	.....
21	"	61409	Pelletier Co., 551 Tache Ave. St. Boniface	2 "	60	Thomas Gagnon...	.....
22	"	61410	R. Manson, Grand Vital P. O., St. Mary's Road.	1½ "	55	St. Boniface Creamery Co.	.. ..
22	"	61432	A. Irish, Grand Vital P. O.	1½ "	55	Clover Dale Creamery Co.	.....
22	"	61433	Blair & Scott, St. Vital, Tache, Ave.	1¼ "	50	Dingle & Stewart, St. Vital.	....
						DISTRICT OF SASKATCHEWAN—	
Oct. 12	Butter.....	66441	S. D. McMichen Co. Moose Jaw.	1½ lbs	45	W. Bennie, Moose Jaw.	.....
" 12	"	66442	The Innis Co., Moose Jaw..	1½ "	55	Saskatchewan Creamery, Moose Jaw.	.....
" 12	"	66443	Moose Jaw Trading Co., Moose Jaw.	1½ "	55	Swift Canadian Co. Moose Jaw.	... .
" 12	"	66444	Western Meat Market, Moose Jaw.	1½ "	55	Souris Valley Creamery, Estevan Saskatchewan.	.....
" 12	"	66445	G. A. Whitelock, Moose Jaw.	1½ "	50	Gorden Ironside & Fares, Moose Jaw.	.....

SESSIONAL PAPER No. 14

BUTTER.

Inspector's Report. (Is not an expression of opinion.)	Results of analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Curd.	Water.	Ash.	Butyro-refractometer at 40° C.	Fat by Difference.		
JOHN TALBOT, INSPECTOR.							
	p. c.	p. c.	p. c.		p. c.		
.....	....	11·61	2 71	43·6	85·68	54691	Genuine.
....	.....	16·82	2·07	43·1	81·11	54694	Water slightly excessive.
....	.....	12·28	2·85	43·6	84·87	54501	Genuine.
....	... .	19·89	3·41	42·8	76·70	54502	Water in excess and fat too low. Adulterated.
....	.....	20 63	2 08	43·6	77·26	54503	Water in excess and fat too low. Adulterated.
J. B. COSGROVE, TEMPORARY INSPECTOR.							
.....	.....	10·07	1·38	43·5	88 55	61401	Genuine.
.....	.....	9·26	0 96	43 4	89 78	61402	"
....	.....	10 05	2 35	43 3	87 60	61403	"
....	.....	10 75	0 74	43 2	88·53	61405	"
... ...	.. ....	13 27	2 42	43·4	84 31	61407	"
....	. .. .	12 38	0 84	43·4	86 78	61408	"
....	.....	7 14	1 95	44 2	91 91	61409	"
....	. .. ...	10 03	2 08	43 0	87 89	61410	"
....	... ..	11 47	2 04	43 4	86·49	61432	"
... .	....	11 04	2 43	42 7	86 59	61433	"
L. H. HALL, INSPECTOR.							
....	... ...	8 53	7 05	42 8	84 42	66441	Genuine.
....	.....	13 43	0 60	42 6	85 97	66442	"
Brookfield	.. ..	13 33	1 16	42 6	85 51	66443	"
....	.....	12 05	1 26	42 6	86 69	66444	"
Cloverdale	.....	12 34	0 80	42 7	86 84	66445	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF ALBERTA—
1915.							
Nov. 16	Butter.....	52281	Spencer Todd, Ltd., Medicine Hat.	2 lbs.	80	Carlyle's Fancy Creamery, Medicine Hat.	.....
" 17	"	52282	E. S. Bowden, Taber	2 "	80	R. Bowden, Purple Springs.	.....
" 17	"	52283	The Good Co., Lethbridge..	2 "	80	Magrath Creamery Assn., Magrath.	.....
" 24	"	52284	Geo. D. Wood, Calgary....	2 "	80	Carlyle Dairy Co., Calgary.	.....
" 24	"	52285	The John Irwin Co., Calgary	2 "	70	P. Pallisen, Calgary.	.....
							DISTRICT OF ROCKY MOUNTAINS—
Nov. 16	Butter.....	61896	J. A. Menzies Ltd., Merritt.	1½ lbs.	70	J. Beckman, Lower Nicola.	.....
" 16	"	68101	Merritt Mercantile Co., Merritt.	1½ "	60	F. R. Stewart & Co., Vancouver.	.....
" 16	"	68102	Merritt and Dist. Ind. Co. of Soc., Merritt.	2 "	90	.....	.....
Dec. 6	"	68107	N. L. McInnes Co., Grand Forks.	2 "	90	Grand Forks Creamery.	.....
" 6	"	68108	" " ..	2 "	75	Lindsay Creamery Co., Lindsay.	.....
							DISTRICT OF VANCOUVER—
Nov. 4	Butter.. ...	55406	David Spencer, Ltd., Vancouver.	1½ "	51	A. P. Slade & Co., Vancouver.	.....
" 4	" ...	55407	Vancouver-Prince Rupert Meat Co., 152 Hastings St. W., Vancouver.	1½ "	50	Swift Can., Ltd., Vancouver.	.....
" 4	"	55408	Woodward Dept'l Stores, Vancouver.	1½ "	53	" " ..	.....
" 4	"	55409	Powell's Market, 58 Hastings St E., Vancouver.	1½ "	50	F. R Stewart & Co., Vancouver.	.....
" 11	"	55410	W. H. Walsh, Davie and Seymour Sts., Vancouver.	1½ "	55	" " ..	.....
" 11	"	55411	Jones' Egg, Butter and Prov. Store, 1186 Granville St., Vancouver.	1½ "	60	Parsons Haddock Co., Ltd., Vancouver.	.....
" 11	"	55412	Clover Leaf Butter Store, Granville Nelson and Sts.. Vancouver.	1½ "	55	F. R. Stewart & Co., Vancouver.	.....
" 12	"	55413	Larsen and Anne, 601 Front St., New Westminster	2 "	70	" " ..	.....
" 12	"	55414	Fraser River Supply Co., 548 Columbia St., New Westminster.	2 "	60	A. P. Slade & Co., Vancouver.	.....
" 12	"	55415	C. A. Walsh, Ltd., 681 Columbia St., New Westminster.	2 "	70	F. R. Stewart & Co , Vancouver.	.....

SESSIONAL PAPER No. 14

BUTTER.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.					No. of Sample.	Remarks, and opinion of the Chief Analyst.
	Curd.	Water.	Ash.	Butyro-refractometer at 40° C.	Fat by difference.		
A. W. R. MARKLEY, INSPECTOR.							
	p. c.	p. c.	p. c.		p. c.		
Dairy	0·96	13·78	2·95	42·9	82·31	52281	Genuine.
"	1·02	9·86	2·65	42·6	86·47	52282	"
Creamery	0·86	13·34	2·12	42·4	83·68	52283	"
Scotia Thistle Brand.. Fancy Creamery Butter	0·86	16·26	3·00	42·8	79·88	52284	Water slightly in excess, and fat low.
Pure Creamery	0·76	21·56	2·70	42·5	74·98	52285	Water in excess, and fat low. Adulterated.
THOS. PARKER, INSPECTOR.							
	1·06	14·64	2·31	42·3	81·99	61896	Genuine.
Merco	0·70	16·20	3·08	42·8	80·02	68101	Water slightly in excess.
Ayreshire Rose	0·72	15·62	2·18	43·3	81·48	68102	Genuine.
Maple Leaf	1·02	12·50	2·25	43·0	84·23	68107	"
Victoria Creamery	0·64	15·08	2·19	44·8	82·09	68108	"
E. J. MORGAN, INSPECTOR.							
	1·00	14·92	1·47	42·8	82·61	55406	Genuine
	0·88	15·52	2·30	43·0	81·30	55407	"
	0·74	15·52	2·49	43·2	81·25	55408	"
	0·68	14·92	1·61	42·9	82·79	55409	"
	1·16	13·44	3·21	43·2	80·19	55410	Fat slightly below standard.
	0·92	15·12	1·45	42·5	82·51	55411	Genuine.
	0·74	16·72	1·89	43·1	80·65	55412	Water in slight excess of standard.
	0·64	15·84	2·93	43·0	80·59	55413	Fat slightly below standard.
	0·98	11·84	2·49	42·1	84·75	55414	Genuine.
	0·70	14·04	2·58	43·4	82·68	55415	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
			DISTRICT OF VICTORIA—				
1915,							
Nov. 10	Butter.....	66616	Windsor Grocery Co., 817 Govt. St., Victoria.	1½ lb.	55	.....	B. Wilson Co., Ltd., Victoria.
" 10	"	66622	The West End Grocery, Co., 1002 Govt. St., Victoria.	1½ "	67½	The Comox Creamery Assn., Courtney, B.C.	.....
" 10	"	66623	" " ..	1½ "	67½	Salt Spring Island Creamery Assn., Ganges, B.C.	.....
" 11	"	66624	Dixi H. Ross & Co., 1317 Govt. St., Victoria.	1½ "	70	Cowichan Creamery Assn., Duncan, B.C.	.....
" 11	"	66625	" " ..	1½ "	70	Salt Spring Island Creamery Assn., Ganges, B.C.	.....
" 12	"	66629	Acton Bros., 1317 Douglas St., Victoria.	1½ "	60	Salmon Arm Creamery, Salmon Arm.	.....
" 12	"	66633	H. O.-Kirkham & Co., Ltd., 1109 Govt. St., Victoria.	1½ "	56	.....	B. Wilson Co., Ltd., Victoria.
" 15	"	66640	Henry W. Driver 856 Yates St., Victoria.	1½ "	55	Swift Can. Co., Ltd., Victoria.	.....
" 23	"	66641	Wellburn's Cash Grocery, 1058 Pandora Ave., Victoria.	1½ "	60	.....	B. Wilson Co., Ltd., Victoria.
" 23	"	66642	E. B. Jones, 1800 Cook St., Victoria.	1½ "	70	Cowichan Creamery Assn., Duncan, B.C.	.....

SESSIONAL PAPER No. 14

BUTTER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.					No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Curd.	Water.	Ash.	Butyro-refractometer at 40° C.	Fat by Difference.		
D. O'SULLIVAN, INSPECTOR.							
	p. c.	p. c.	p. c.		p. c.		
Clover Leaf Creamery.	0·72	16·12	2·64	42·3	80 52	66616	Water slightly excessive and fat correspondingly low.
....	1·16	12·40	2·32	43·1	84·12	66622	Genuine.
.. ..	1·06	13·48	2·41	42·1	83·05	66623	"
....	1·08	12·92	1·46	42·5	84·54	66624	"
.....	1·14	14·20	1·93	42·6	82·73	66625	"
Fresh Creamery Butter.	0·98	13·52	1·66	43·2	83·84	66629	"
.....	0·80	15·78	2·50	42·4	80·92	66633	"
.....	0·88	12·76	1·51	43·5	84·85	66640	"
Special Creamery	1·02	14·28	1·54	43·6	83·16	66641	"
.. ..	1·00	12·36	1·98	42·6	84·66	66642	"

APPENDIX Z.

BULLETIN No. 335—CREAM OF TARTAR.

OTTAWA, April 11, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue,

SIR,—I beg to hand you a report dealing with the results of analysis of 180 samples purchased as Cream of Tartar in October to December of last year.

Cream of Tartar was last inspected in February and March, 1913 (see Bulletin 263). Since that date commercial conditions have seriously changed as regards this article and prices have greatly increased. In consequence of this fact, various substitutes for Cream of Tartar are offered; and of this class of goods some thirty seven (37) samples have been more or less fully, analysed. They are found to consist chiefly of acid phosphate of lime, and for the most part contain alum, (soda-alum) as well. The acidity is reduced to that of Cream of Tartar by addition of starch. No particular objection to these articles can be urged, except that the price at which they are sold is exorbitant, usually from 30 to 40 cents per pound. This is the price at which it has been customary to sell cream of tartar; and the fact that some of these substitutes contain small percentages of Cream of Tartar or tartaric acid, and that others are offered under names which more or less distantly resemble Cream of Tartar, suggests a willingness to accept the price of Cream of Tartar for an article which should be sold at a lower price. It may be found desirable more fully to investigate the substitutes for Cream of Tartar now so much in evidence.

So far as the present inspection of Cream of Tartar is concerned, the results are as below:—

Samples found genuine and of B. P. standard	62
" " but of commercial grade	100
" judged doubtful	2
" sold as compound	2
" found adulterated under the Act	14
Total	180

The standard of the British Pharmacopœia requires 97·5 per cent. true bi-tartrate of potash.

The so-called commercial grade proposed by myself in 1910 (See Bull. 222) contains at least 90 per cent. of bi-tartrate of potash.

Two samples contain foreign matter in so small quantity as to suggest accident. These I have marked doubtful.

Fourteen samples sold as Cream of Tartar, are mixtures which should be sold as substitutes for this article. These must be judged as adulterated under the Act.

I beg to recommend publication of this report as Bulletin No. 335.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1915.							
Oct. 18	Cream of Tartar.	64266	Wm. Moore, Halifax.....	¾ lb..	39	Herron Leblanc, Montreal.	Mfrs .....
" 19	"	64267	John P. Mott & Co., Halifax.	¾ "	40	Vendor	.....
" 20	"	64268	Wentzells, Ltd., Halifax .	¾ "	45	John P. Mott & Co., Halifax.	Mfrs.....
" 20	"	64269	Jas. Scott & Co., Halifax.	¾ "	40	W. H. Schwartz & Son, Halifax.	" .....
" 27	"	64270	Corkum & Ritcey, Ltd., Halifax.	¾ "	45	.....	" .....
" 27	"	64271	R. B. Seeton & Co., Halifax.	¾ "	45	E. W. Gillett & Co., Ltd., Toronto.	" .....
" 27	"	64272	National Drug Co., Halifax.	¾ "	42	Vendors.....	.....
" 28	"	64273	W. H. Schwartz & Sons, Halifax.	¾ "	37	"	.....
Dec. 7	"	64274	Wentworth Stores, Windsor.	¾ "	50	McCready & Sons, St. John, N.B.	Mfrs.....
" 7	"	64275	Cross & DeWolfe, Kentville.	¾ "	45	G. E. Barbour Co., St. John, N.B.	" .....
DISTRICT OF PRINCE EDWARD ISLAND—							
" 6	Cream of Tartar.	60383	W. A. Poole & Co., Lower Montague.	1 lb..	50	G. E. Barbour Co., Co., St. John.	.....
" 6	"	60384	McDonald Bros., Georgetown.	1 "	60	.....	Carvell Bros., Charlottetown
11	"	60385	P. J. Berrigan, Dunedin, Lot 31.	1 "	45	John P. Mott & Co., Halifax.	.....
" 12	"	60386	Beer & Goff, Charlottetown.	1 "	60	W. H. Schwartz, Halifax.	.....
" 12	"	60387	Coffin & Co., Charlottetown.	1 "	60	McCready & Son, St. John	.....
" 12	"	60388	W. W. Walker, Charlottetown.	1 "	60	.....	J. A. Farquharson & Co., Charlottetown
" 12	"	60389	Jenkins & Son, Charlottetown.	1 "	45	E. W. Gillett Co., Ltd., Toronto.	.....
" 12	"	60390	J. C. Crabbe, Charlottetown.	1 "	60	McCready & Son, St. John.	.....
" 12	"	60391	J. G. Passmore, Charlottetown.	1 "	60	.....	J. A. Farquharson & Co., Charlottetown
" 12	"	60392	P. A. Smith, Charlottetown.	1 "	55	E. W. Gillett Co., Toronto.	.....

SESSIONAL PAPER No. 14

CREAM OF TARTAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Acidity C.C. ñ per 100 grams.	Bitartrate of potash expressed as weight.	Lime (Ca O).	Phosphates.	Sulphates.	Starch.	Alumina (Al_2O_3).		
R. J. WAUGH, INSPECTOR.									
.....	503	.....	7·70	4·46	7·95	.....	.....	64266	Adulterated.
.....	531	99·8	.....	.. ...	.....	.....	...	64267	Genuine. Meets B. P. requirements.
....	530	99·7	.....	.. ..	.... .	....	...	64268	" " "
.....	481	90·5	Present.	.....	. .. .	.. .	.....	64269	" Commercial Grade.
....	462	.....	13·80	10 26	12 20	8·95	.....	64270	Adulterated.
.....	531	99·8	.....	.....	.. ...	....	...	64271	Genuine. Meets B. P. requirements.
....	479	90·2	Present.	.....	. ....	....	.....	64272	Genuine. Commercial Grade.
.....	480	90·4	"	.....	.....	....	....	64273	" " "
....	498	93·5	"	.....	.....	.. ..	.....	64274	" " "
.....	479	90 2	"	..	....	....	....	64275	" " "
WM. A. WEEKS, INSPECTOR.									
....	495	93·2	Present.	..	....	. ..	. .	60383	Genuine. Commercial Grade.
. ...	495	93 2	"	...	..	.	...	60384	" " "
....	479	90 2	"	...	...	.	..	60385	" " "
.. . .	484	91 0	"	.	Trace	.	...	60386	" " "
....	497	93 5	"	...	.	. ..	...	60387	" " "
....	482	90 7	"	...	. ...	.	...	60388	" " "
....	531	99 8						60389	Genuine. Meets B. P. requirements.
....	504	94 9	Present.	...	Trace	...	...	60390	Genuine. Commercial Grade.
....	484	91 0	"	...	...	.	...	60391	" " "
... .	502	94·5	"	...	.	...	...	60392	" " "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer	Furnisher.
DISTRICT OF NEW BRUNSWICK—							
1915.							
Jan. 19	Cream of Tartar.	59646	Baird & Peters, St. John, N.B.	1 lb.	40	Vendors	
" 19	"	59647	Puddington, Wetmore, Morrison, Ltd., St. John, N.B.	¾ "	30	"	
" 19	"	59648	Jones & Schofield, St. John, N.B.	¾ "	30	"	
" 19	"	59649	G. E. Barbour Co., Ltd., St. John, N.B.	¾ "	30	"	
" 20	"	59650	2 Barkers, Ltd., St. John, N.B.	1 lb.	45	C. H. Cochrane & Co., Ottawa, Ont.	
" 20	"	59651	Dearborn & Co, St. John, N.B.	1 "	45	Vendors	
" 21	"	59652	Northrup & Co., St. John, N.B.	1 "	38		C. H. Cochrane & Co., Ottawa, Ont.
" 21	"	59653	T. C. Collins & Co., St. John, N.B.	1 "	50	Vendors	
" 22	"	59654	McPherson Bros., St. John, N.B.	1 "	60		G. E. Barbour & Co., St. John, N.B.
" 22	"	59655	M. E. Grass, St. John, N.B.	1 "	50		G. Bent & Sons, St. John.
DISTRICT OF NEW BRUNSWICK—							
Oct. 5	Cream of Tartar.	66176	2 Barkers, Ltd., St. John.	1 lb.	55	Vendors	
" 5	"	66177	H. W. Cole, St. John	3 pkg.	45	"	
" 6	"	66178	Dearborn & Co., St. John	1 lb.	50	"	
" 7	"	66179	Baird & Peters, St. John	1 "	55	"	
" 12	"	66180	Puddington, Wetmore & Morrison, St. John.	3 pkg.	38	"	
" 13	"	66181	G. E. Barbour Co., Ltd., St. John.	1 lb.	50	"	
" 20	"	66183	W. H. Fleming, Woodstock.	1 "	60	G. E. Barbour, Ltd., St. John.	
" 26	"	66184	W. B. McKay, Co., Sussex.	1 "	60	H. W. Cole, St. John	
" 26	"	66185	Sussex Mercantile Co., Sussex.	1 "	50	" "	
" 27	"	66195	Reed Co., Ltd., Moncton.	3 pkg.	45	J. P. Mott & Co, Halifax.	

SESSIONAL PAPER No. 14

CREAM OF TARTAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Acidity C.C. n per 100 grams.	Bitartrate of potash expressed as weight.	Lime (Ca O).	Phosphates.	Sulphates.	Starch.	Alumina ($Al_2 O_3$).			
J. C. FERGUSON, INSPECTOR.										
....	491	92·4	Present.	.....	.....	.... .	.....		59646	Genuine. Commercial Grade.
....	493	92·8	"	....	.....	... .	.....		59647	" " "
"Holly" Brand.	493	92 8	"	.....	.....	.. .	.....		59648	" " "
"Acorn".....	516	97 1	Trace.	....	.....	...	. ..		59649	Genuine ments. Meets B. P. require
....	526	99·0	....	. .	.....	....	...		59650	" " "
....	530	92 7	.....	. ...		.....	.....		59651	" " "
....	527	99 2	..	. .	.....	. .	.....		59652	" " "
.. ..	504	94 9	Present.		. .	....	....		59653	Genuine. Commercial Grade.
....	500	91·1	"	. ...	.. .	...	....		59654	" " "
....	486	91·5	"	. ...	....	.....	. ..		59655	" " "
JOHN C. FERGUSON, INSPECTOR.										
....	486	91 5	Present.		.. .	.	...		66176	Genuine. Commercial Grade.
. . . .	497	93 0	"	. .	.				66177	" "
National Brand	529	99 6			.				66178	" Meets B. P. require ments.
.. ..	484	91 0	Present	.....	.....	.....	...		66179	" Commercial Grade.
.	530	99 7					.		66180	" Meets B. P. require ments.
.... .	530	99 7							66181	" "
. . ..	482	90 7	Present						66183	" Commercial Grade.
....	496	93 3	"	.....	.....	.....	..		66184	" "
.. ..	493	92 9	"						66185	" "
....	487	91 6	"				.		66186	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	urnisher.
DISTRICT OF QUEBEC CITY—							
1915.							
Oct. 6	Creme de tarte.	56542	J. Pepin, 132 Rue Massue, Quebec.	1 lb.	60	Unknown	Turcotte Frere.
" 7	"	56545	A. Larue, 35 Rue Victoria, Quebec.	1 "	60	"	
" 4	"	56546	A. Drolet, 714 Rue St. Valier, Quebec.	1 "	75	Nat. Drug. Co	Mfrs
" 4	"	56547	N. Tremblay, 8 Rue St. Agnes, Quebec.	1 "	80	Unknown	
" 6	"	56548	Jos. Vezina, Enr., 914 Rue St. Valier, Quebec.	1 "	50	"	
" 7	"	56550	E. Bascon, 28 Rue St. Hermine, Quebec.	1 "	60	Langlais	E. Paradis
" 7	"	56552	J. N. Rousseau, 185 Rue Massue, Quebec.	3 pkg.	30	Unknown	J. B. Renaud
" 7	"	56553	G. A. Gagnon, 52 Rue St. Luc, Quebec.	1 lb	40	Turcotte Frere	Mfrs
" 8	"	56554	Abel Turcotte, 272 Rue St. Jean, Quebec.	1 "	50	Unknown	
" 8	"	56555	L. Tardif, 175 Rue St. Jean, Quebec.	1 "	80	"	J. B. Renaud
DISTRICT OF QUEBEC PROVINCE—							
Oct. 13	Creme tarte.	4425	Joe Brown, St. Claire	1½ lbs.	1.05	J. B. Renaud & Fils Quebec.	
" 14	"	4428	Cleophas Beaudoin, Armagh.	1½ "	90	Quebec Preserving Co., Quebec.	
" 1	Creme de tarte.	331	J. N. Desjardins, St. Jerome.	1 "	80	Hudon Hebert, Montreal.	
" 1	"	333	Chas. Elic Laflamme, Ste. Jerome.	1 "	80	E. W. Gillett & Co., Toronto.	
" 1	"	335	T. Lapointe, Ste. Jerome.	1 "	60		
" 2	"	338	Damien Hetu, St. Agathe, de Monte.	1 "	50		
" 2	"	339	Hormisdas Giroux, St. Agathe des Montes.	1 "	40		
DISTRICT OF EASTERN TOWNSHIPS—							
Oct. 21	Cream of Tartar	58446	W. Jutras, St. Hyacinthe.	1 lb.	50		
" 21	"	58447	Lassonde & Frere, St. Hyacinthe.	1 "	80		
" 26	"	58448	Gerin & Boulay, Coaticook	1 "	60		
" 26	"	58449	Woodman & McKee, Coaticook.	3 pkg.	45	Pure Gold Mfg. Co.	
" 26	"	58450	B. J. Smith & Son, Coaticook.	1 lb.	60		

SESSIONAL PAPER No. 14

CREAM OF TARTAR.

Inspector's Reports. (Is not an expression of opinion.)	Results of Analysis: Acidity C.C. $\frac{N}{10}$ per 100 grains.	Bitartrate of potash expressed as weight.	Lime (Ca O).	Phosphates.	Sulphates.	Starch.	Alumina. ($Al_2 O_3$)	No. of Sample.	Remarks and Opinion of the Chief Analyst.
F. X. W. E. BELAND, INSPECTOR.									
		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		
....	468	88·1	Present.	. .	Trace.	.....	....	56542	Genuine. Commercial Grade.
.....	481	.....	11·10	8·48	9·63	3·90	0·20	56545	Adulterated.
....	495	93·2	Present.	... .	.....	.....	.. .	56546	Genuine. Commercial Grade.
....	518	.....	15·70	18·93	10·31	12·55	0·50	56547	Adulterated.
.....	313	.....	20·00	. . .	36 56	....	1·70	56548	"
....	496	93·3	Present.	... .	....	. .	....	56550	Genuine. Commercial Grade.
....	490	92 3	"	.....	.....	. ....	....	56552	" "
....	492	92·7	"	.....	.....	.. ...	.....	56553	" "
....	493	92·9	"	....	. ..	.. .	...	56554	" "
....	496	93·3	"	.....	.. ..	...	. . .	56555	" "
O. BROCHU AND D. CADIEUX, TEMPORARY INSPECTORS.									
.....	488	91·7	.....		Trace	1 30	...	4425	Genuine. Commerical grade. Starch probably accidental.
....	495	93·2	....	.	.....	....	..	4428	Genuine. Commerical grade.
....	501	94·3	...	... .	.....	..		331	" "
.....	531	99 9	....	. ..	. .	....	.. ..	333	Genuine. Meets B. P. requirements.
.....	514	..	12 80	8 34	9 10	4 52	0 50	335	Adulterated.
....	478	90 0	...	....	....	....	..	338	Genuine. Commercial grade.
.....	.....	..	27 88	35 60	14 10	5 46	1 13	339	Adulterated.
J. J. COSTIGAN, ACTING INSPECTOR.									
....	..		26·78	22 57	23 08	5 85	0 28	58446	Adulterated.
....	499	93 8	...	....	..	..	.	58447	Genuine. Commercial grade.
....	491	92 4	...	..			...	58448	" "
....	528	99 3	....	...	.	..	..	58449	Genuine. Meets B. P. requirements.
....	510		14 70	11 49	10 90	2 50	1 00	58450	Adulterated.

BULLETIN No. 335—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF EASTERN TOWNSHIPS—							
1915.							
Oct. 29	Cream of Tartar.	58451	Daviau & Larose, Granby.	1 lb.	70		
" 29	"	58452	H. Cyr, Granby	1 "	60		
" 29	"	58453	L. M. Marcaurale, Granby	1 "	60		
" 29	"	58454	Mercure & Frere, Granby.	1 "	50		
" 29	"	58455	A. Z. Cote, Granby	1 "	60		Hudon & Orsali.
DISTRICT OF QUEBEC PROVINCE—							
Dec. 23	Creme de tarte.	3663	J. E. Gagne, St. Maxime.	3	45	Dr. Ed. Morin, Quebec	
1916.							
Jan. 10	Creme de tarte.	3670	G. E. Dussault, St. Marguerite.	1	60	N. Turcotte, Quebec	
" 12	"	3673	G. A. Cloutier, St. Odilon	3	30		
DISTRICT OF MONTREAL—							
1915.							
Nov. 25	Cream of Tartar.	67291	D. Maloney, 80 Sherbrooke St. W., Montreal.	3 tins.	60	Herron, LeBlanc, Ltd.	
" 25	"	67292	L. S. Guay, 236 Sherbrooke St. W., Montreal.	6 pkg.	60		L. Chaput, Fils & Co.
" 25	"	67293	Westmount Grocery Co., 4783 Sherbrooke St., Westmount.	3 tins.	60	S. H. Ewing & Son.	
" 25	"	67294	R. Grier, 1161 St. Antoine St., Montreal.	12 ozs.	45		Howe, McIntyre.
" 25	"	67295	D. Lachaine, 256 St. Margaret St. Montreal.	1 lb.	40		Nap. Longpré.
" 25	"	67296	N. Viau, 1116 St. Antoine St., Montreal.	3 tins.	30	McLaren's, Ltd.	
" 25	"	67297	J. A. Groulx, 1073 St. Antoine St., Montreal.	1 lb.	75		Hudon, Hebert & Co.
" 25	"	67298	J. Bouthillier, 1018 Antoine St., Montreal.	12 ozs.	45		Laporte, Martin & Co.
" 25	"	67299	E. Leroux, 1920 St. James St., Montreal.	16 "	35		Hudon & Orsali.
" 26	"	67300	W. J. Roberts, 949 Wellington St., Verdun.	3 pkg.	45		Wm. Galbraith & Son.

SESSIONAL PAPER No. 14

CREAM OF TARTAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Acidity C.C. $\frac{n}{5}$ per 100 grams.	Bitartrate of potash expressed as weight.	Lime (Ca O).	Phosphates.	Sulphates.	Starch.	Alumina ($Al_2 O_3$).		

Concluded.

		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
.....	532	100·0	.....	.....	....	. .	....	58451	Genuine. Meets B. P requirements.
.. ..	.....	.....	28·30	30·81	16·54	.....	0 76	58452	Adulterated.
Key Brand	.....	.....	31·57	35·06	17·04	1 50	0·98	58453	"
....	467	87 8	.....	Trace	....	.. .		58454	Genuine. Commerical grade.
. . ..	492	92·5	.....	. .	.....	... .	.....	58455	" "

J. E. AUDET, TEMPORARY INSPECTOR.

....	485	91 1	2 2	0 50	Trace	. . .	....	3663	Genuine. Commerical grade.
..... .	496	93 2	Present	.	...		.	3670	" "
....	498	93 6	"	.....	...	...	...	3673	" "

D. J. KEARNEY, INSPECTOR.

.	469	88 2	.	Trace	. .	.		67291	Genuine Commercial grade
....	531	99 8	...		...			67292	" Meets B. P. requirements
	472	88 8	...	Trace			.	67293	Genuine Commercial grade
.	515	96 8		. .				67294	" Meets B. P. requirements
....	512	.	8 80	6 20	5 91	2 20	0 08	67295	Adulterated
. .	532	100 0						67296	Genuine Meets B. P. requirements
....	472	88 7	...	...	Trace	...		67297	Genuine Commercial grade
.....	488	91 7	...	...				67	" "
. .	488	91 8						67	" "
....	468	88 0	...	...	...			67	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF OTTAWA—							
1915.							
Sept. 29	Cream of Tartar.	70501	Taber & Gemmill, Almonte.	1 lb..	60	Pure Gold Co., Toronto.	.....
" 29	"	70502	Fred W. Robertson, Almonte.	1 " ..	60	" " ..	....
Oct. 1	"	70503	A. Sweet & Co., Winchester.	1 " ..	50	... .	T. W. Chamberlain & Co. Prescott.
" 1	"	70504	Hugh Fraser and Son, Winchester.	1 " ..	60	Gillett's, Toronto....	... .
" 1	"	70505	Fulton Bros., Chesterville.	1 " ..	60	....	Hudon, Hebert & Cie, Montreal.
" 2	"	70506	Fred. A. Davis, Quyon...	1 " ..	80	Unknown	Unknown.....
" 9	"	70507	H. H. Layng, Smith's Falls.	1 " ..	60	....	Robertson, Nicolle, Smith's Falls.
" 9	"	70508	J. T. Conway, Perth	1 " ..	60	Unknown	Unknown.. ....
" 16	"	70509	John Hughes, Prescott ...	1 " ..	80	... .	J. M. Lowes, Toronto.
" 16	"	70510	Doyle Bros., Prescott.....	3 pkg.	45	S. H. Ewing & Son, Montreal.	... .
DISTRICT OF KINGSTON—							
Oct. 27	Cream of Tartar.	70271	W. E. Hopkinson, Kingston.	1 lb..	80	E. W. Gillett, Toronto.	... .
" 27	"	70272	Ben Lee, Kingston.....	1 "	60	.....	Geo. Robertson Co., Ltd., Kingston.
" 28	"	70273	A. S. Kimmerly, Napanee.	1 "	80	Unknown	.....
" 28	"	70274	The Fair, Napanee.....	1 "	60	....	F. Newmen, Picton.
" 28	"	70275	J. H. Fish, Napanee....	1 "	40	J. M. Lowes Co., Toronto.	.....
" 28	"	70276	H. W. Kelly, Napanee...	1 "	55	Todhunter & Mitchell Toronto.	.....
" 28	.	70277	F. H. Perry, Napanee....	3pkgs.	60	Matthewson Sons, Montreal.	....
" 28	"	70278	J. G. Oliver, Napanee....	1 lb..	50	Ewing Co., Montreal	.....
" 28	"	70279	Scrimshaw & Mills, Napanee.	1 "	60	McLaren's, Ltd., Hamilton.	.....
" 28	"	70280	G. P. Sproule & Co, Napanee.	1 "	60	Unknown..	.....

SESSIONAL PAPER No. 14

CREAM OF TARTAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.	
	Acidity CC fi per 100 grams.	Bitartrate of potash expressed as weight.	Lime ($Ca O$)	Phosphates.	Sulphates.	Starch.	Alumina ($Al_2 O_3$)			
J. A. RICKEY, INSPECTOR.										
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	488	91·8	....	.....	.....	.....	.....	70501	Genuine.	Commercial grade.
... .	490	92·2	....	.....	....	.....	.....	70502	"	"
....	528	99·3	.. .	....	....	....	.....	70503	"	Meets B. P. requirements.
.....	523	98·3	.....	... .	.	.. .	.....	70504	"	"
.....	458	86·2	3·85	.....	2·88	.....	.....	70505	Doubtful.	
....	523	98·4	....	.....	. . ..	...	.....	70506	Genuine.	Meets B. P. requirements.
..... .	496	.....	1 70	0 31	0·33	None.	0·21	70507	Doubtful.	
.....	524	98·6	.....	...	.. .	.....	.....	70508	Genuine.	Meets B. P. requirements.
.....	489	91·9	...	.....	.....	.....	....	70509	Genuine.	Commercial grade.
. .. .	531	99 9	. .	.....	...	.....	.....	70510	"	Meets B. P. requirements.
JAMES HOGAN, INSPECTOR.										
....	532	100 0	....	..	.....	..	.. .	70271	Genuine.	Meets B. P. requirements.
....	527	99 2	....	. ...	....	.....	.....	70272	"	"
. . ..	506	95 2	...	.	..	.	...	70273	Genuine.	Commercial grade.
....	492	92 5	...	.....	.....	.....	.....	70274	"	"
Sold as compound.	.....	.....	25 15	23 59	22 63	9 83	0 31	70275	Sold as compound.	
.. . . .	493	92 8	....	.....	.....	.....	.....	70276	Genuine.	Commercial grade.
.....	527	99 2	.....	.....	.....	.....	.	70277	Genuine.	Meets B. P. requirements.
... .	495	93 2	. . .	.....	. . ..	.....	.....	70278	Genuine.	Commercial grade.
.....	488	91·8	.....	....	....	....	..	70279	"	"
....	481	90 4	.....	...	..	...	.....	70280	"	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF TORONTO—							
1915.							
Oct. 12	Cream of Tartar.	69935	Bell's Grocery, Stayner...	1 lb..	60	.....	Dalton Bros., Toronto.
" 13	"	69936	Prentice & Sproule, Collingwood.	1 "	50	....	McLaren's, Ltd., Hamilton.
" 13	"	69937	T. N. Brown, Collingwood.	1 "	65	.. . .	Unknown .....
" 14	"	69938	H. J. Buchanan, Barrie..	1 "	75	.....	Eby Blain, Ltd., Toronto.
" 14	"	69939	Jas. Cheeseman, Barrie..	1 "	60	....	Perkins Ince Co., Toronto.
" 15	"	69940	Wisdom & Co., Allendale.	1 "	50	... .	Unknown .....
" 19	"	69941	James Drysdale, Elmsdale.	1 "	60	E. W. Gillett & Co., Toronto.	.....
" 20	"	69942	W. M. Thompson, Penetang.	1 "	80	" "	.....
" 20	"	69943	A. D. G. Hager, Midland.	1 "	60	.....	Unknown .....
" 20	"	69944	The Clayfair Preston Co., Ltd., Midland.	1 "	60	McLaren's, Ltd., Hamilton.	.. . .
DISTRICT OF HAMILTON—							
Sept. 30	Cream of Tartar..	58426	P. F. Gage, 331 King St., E. Hamilton.	1 lb..	50	McLaren's Ltd.....	... .
" 30	"	58427	Wm. Carroll, 94 John St., S. Hamilton.	6 pkgs	42	... ...	... .
" 30	"	58428	A. R. McLachlin, 72 King St., W. Hamilton.	6 "	30	Young-Winfield, Ltd	....
Oct. 1	"	58429	S. G. Lyne, Barton St., Hamilton.	1 lb..	60	..... .	....
" 1	"	58430	L. J. Hill, 367 Barton St. Hamilton.	1 "	50	.....	....
" 4	"	58431	Herbert J. Wells, 50 King St., St. Catherines.	1 "	60	....	....
" 4	"	58432	Lawrence & Co., 204 St. Paul St., St. Catherines.	1 "	60	....	Todhunter & Mitchell, Toronto.
" 4	"	58433	Roddy & Walker, 135 Queenston St., St. Catherines.	1 "	60	.....	Gorman-Ecker Co., Toronto.
" 4	"	58434	Henry Glachin, Church St., St. Catherines.	1 "	55	McLaren's Ltd ...	.. . .
" 4	"	58435	Arthur Harp, 66 Colborne St., Brantford.	1 "	75	Brantford Coffee & Spice Co.	....

SESSIONAL PAPER No. 14

CREAM OF TARTAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.	
	Acidity C.C. N per 100 grams.	Bitartrate of potash expressed as weight.	Lime (Ca O).	Phosphates.	Sulphates.	Starch.	Alumina ($A_2 O_3$).			
H. J. DAGER, INSPECTOR.										
		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.			
.. ..	485	91·2	.. ...	.....	....	.....	.....	69935	Genuine.	Commercial grade.
....	490	92·1	... ..	.....	....	.....	...	69936	"	"
....	487	91·6	... ..	.....	....	.....	.....	69937	"	"
....	492	92·5	... ..	.....	.....	.....	.....	69938	"	"
.. ..	521	98·0	.. ...	.....	.....	.....	....	69939	Genuine.	Meets B. P. requirements.
... .	....	...	29·95	17·85	32·47	1·10	0·16	69940	Adulterated.	
....	489	92·0	.....	.....	.....	. ...	.....	69941	Genuine.	Commercial grade.
. .....	531	99·9	.. ....	.. ..	.....	.....	.....	69942	Genuine.	Meets B. P. requirements.
.. . .	488	91·8	.... .	.....	.....	.....	.....	69943	Genuine	Commercial grade.
... .	503	94·7	...	...	.....	.....	.....	69944		"
J. J. COSTIGAN, ACTING INSPECTOR.										
... ...	492	92·5		..		.	...	58426	Genuine.	Commercial grade.
Alliance Brand	497	93·4	. .	Trace.	Trace.	0·45		58427	Genuine	Commercial grade. Starch probably accidental
. . . .	531	99·9		.....	.....	.....	.....	58428	Genuine.	Meets B.P. requirements.
... ...	500	.	3·80	3·09	.	3·83	.	58429	Adulterated	
....	492	92·6	....	..	..	..	..	58430	Genuine	Commercial grade
....	494	92·9						58431		
. . ...	524	98·5						58432	Genuine	Meets B.P. requirements.
.	477	89·7		Trace.				58433	Genuine	Commercial grade
	471	88·6						58434		
. ...	469	88·3						58435		

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF WINDSOR—
1915.							
Oct. 12	Cream of Tartar.	54680	A. M. Milton, Ridgetown.	1 lb..	1.00	....	National Drug Co., London.
" 12	"	54682	W. & E. Atworth & Son, Ridgetown.	3 pkgs	30	Gorman Eckert & Co., London.	.....
" 12	"	54681	Orendorf Bros., Ridgetown.	1 lb..	75	Unknown.....	.....
" 12	"	54686	Clark & Sons, Ridgetown.	1 "	85	Gorman-Eckert Co., London.	....
" 12	"	54687	P. Bawden, Ridgetown...	1 "	75	Gillett Co., Toronto.	.....
" 13	"	54689	C. S. Thornton, Leamington.	1 "	60	Gorman-Eckert Co., London.	....
" 13	"	54690	W. W. Ames, Leamington.	1 "	80	Unknown.....	.....
" 13	"	54693	Robinson Bros., Leamington.	1 "	75	Todhunter & Mitchell, Toronto.	... .
" 14	"	54506	Theodore B. S. Tweedale, Essex.	1 "	50	Unknown.....	... .
" 14	"	54507	S. H. Sadler, Essex.....	1 "	60	"	....
							DISTRICT OF MANITOBA—
Oct. 11	Cream of Tartar	61426	Thomas Lawrence, Lyleton.	1½ lb.	1·05	E. W. Gillett, Toronto.	.....
" 11	" ..	61427	R. A. Laing, "	1 "	55	Gold Standard Co., Winnipeg.	.....
" 13	" ..	61428	De Long & May, Reston..	1 "	90	Novary Products Co., Toronto.	....
" 13	" ..	61429	G. S. Munroe Co., Ltd. Reston.	1 "	90	McLaren's Ltd., Winnipeg.	....
" 15	" ..	61430	W. J. Bower, Melita	1 "	1·05	E. W. Gillett, Co., Toronto.	.....
" 28	" ..	61434	J. A. Harvie & Co., Treaherne.	3 cans	1·05	Gold Standard Co., Winnipeg.	.....
" 28	" ..	61435	P. R. McLachlin, Rathwell.	3 "	1·05	Campbell Bros. & Wilson, Winnipeg.	.....
Nov. 1	" ..	61436	Erickson Bros., Selkirk...	3 pkgs	45	Todhunter, Mitchell Co. Toronto.	.....
" 2	" ..	61437	A. Thornton, 1583 Main St., Kildonan.	3 "	45	Gorman Eckert Co., Winnipeg.	.....
" 2	" ..	61438	Kildonan Cash Supply Co,, 1741 Main St., Kildonan	3 "	45	Blue Ribbon Co., Toronto.	....
							DISTRICT OF SASKATCHEWAN—
Oct. 13	Cream of Tartar.	66446	McLean Grocery, Moosejaw.	1 lb.	60	White Star Mfg. Co., Winnipeg.	....
" 13	" ..	66447	E. E. Ard, Moosejaw....	1 "	60	Gold Standard Mfg Co. Winnipeg.	Codville Co., Moosejaw.
" 13	" ..	66448	E. F. Cassidy, "	1 "	65	....	Todhunter & Mitchell Toronto.
" 13	" ..	66449	J. R. Kelly, "	1 "	60	....	McDonald Crawford Co. Moosejaw.
" 13	" ..	66450	Geo. A. Tapley, "	1 "	60	White Star Mfg. Co. Winnipeg.	.....

SESSIONAL PAPER No. 14

CREAM OF TARTAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.	
	Acidity C.C. $\frac{n}{1}$ per 100 grams.	Bitartrate of potash expressed as weight.	Lime (Ca O).	Phosphates.	Sulphates.	Starch.	Alumina (Al_2O_3).			
JOHN TALBOT, INSPECTOR.										
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
.....	491	92·3	...	.....	....	... ..	.....	54680	Genuine.	Commercial grade.
..... .	481	90·4	..	.....	.....	.....	.....	54682	"	"
....	485	91·3	.....	.. .	...	.... .	. ..	54684	"	"
.....	486	91·4	.....	....	.....	...	.....	54686	"	"
. . ..	532	100·0	. .	.....	. .	.....	.....	54687	Genuine.	Meets B P requirements.
.. ..	475	89·3	.....	Trace.	.....	. .	.....	54689	Genuine.	Commercial grade.
....	495	93·1	... .		...	...	. .	54690	"	"
....	528	99·4	.	. .	..	. .	...	54693	Genuine.	Meets B P. requirements.
.....	494	92·9	..	.....	. .	....	...	54506	Genuine.	Commerical grade.
..	478	90·0	.	. .	..	....	. .	54507	"	"
J. B. COSGROVE, TEMPORARY INSPECTOR.										
. ...	522	98·2	.....	. .	. .	....	...	61426	Genuine.	Meets B. P. requirements.
....	526	98·9	. .	.....	.	. .	....	61427	"	" " "
....	475	89·3	Present.	....	. .	....	.	61428	Genuine.	Commercial grade
....	489	92·0	"	.	. .	....	.....	61429	"	" " "
....	519	97·6	. ....	..	.....	.....	....	61430	Genuine.	Meets B. P. requirements.
... .	520	97·8	. .	...	....	.	....	61434	"	" " "
. . ..	528	99·3	.....	.....	....	....	.	61435	"	" " "
. . . .	486	91·0	Present.		.			61436	Genuine.	Commercial grade
.....	484	91·0	"					61437	"	" " "
	474	89·2	"					61438	"	" " "
L. H. HALL, TEMPORARY INSPECTOR.										
.. ..	526	98·9	.	.	.	.	..	66446	Genuine.	Meets B. P requirements
. . . . .	524	98·6	.....					66447	"	" " "
. . . .	484	91·0	Present					66448	Genuine.	Commercial Grade
. . . . .	526	98·9	.	.	.	.	. .	66449	Genuine.	Meets B. P. requirements
. . . . .	524	98·6	.....	...	.	.		66450	"	" " "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer	Furnisher.
DISTRICT OF ALBERTA—							
1915.							
Nov. 16	Cream of Tartar.	52286	Spencer Todd, Ltd., Medicine Hat.	1 lb.	60	Dalley's Hamilton ..	... .
" 16	"	52287	Sprague & Williamson, Medicine Hat.	3 tins.	60	F. F. Dalley & Co., Hamilton.	....
" 17	"	52288	E. S. Bowden, Taber.	3 pkg.	60	Campbell Bros. & Wilson, Winnipeg	.....
" 17	"	52289	Vickery & Co., Taber....	1 lb.	70	Campbell, Wilson & Horne, Lethbridge	.....
" 17	"	52290	The Good Company, Lethbridge.	1 "	75	A. Macdonald Co., Lethbridge.	.....
" 18	"	52291	J. D. Higginbotham & Co., Ltd., Lethbridge.	1 "	1 00	Lyman's Ltd., Montreal.	.....
" 23	"	52292	The John Irwin Co., Calgary.	1 "	80	Georgeson & Co., Ltd., Calgary.	....
" 23	"	52293	Geo. I. Wood, Calgary. ..	1 "	65	Georgeson & Co., Ltd., Calgary.	.. ..
" 24	"	52294	J. T. Macdonald, Calgary	3 pkts.	60	E. W. Gillett Co., Toronto.	.....
" 24	"	52295	S. G. Freeze, Calgary. .	3 "	60	Blue Ribbon, Ltd., Winnipeg.	.....
DISTRICT OF ROCKY MOUNTAINS—							
Oct. 18	Cream of Tartar.	61891	M. Penney, Prince George	3 tins.	1.20	Kelly Douglas & Co., Vancouver.	.....
" 18	"	61892	Hood's Ltd., Prince George	3 "	75	White Star Mfg., Winnipeg.	.....
Nov. 16	"	61897	J. A. Menzies, Ltd., Merritt.	3 pkgs.	1 20	E. W. Gillett, Co., Toronto.	. .....
" 16	"	61898	Merritt Mercantile Co., Merritt.	3 "	60	Wm. Braid & Co., Vancouver.	....
Dec. 6	"	68109	N. L. McInnes, Grand Forks.	1 lb.	75	F. F. Dalley, Co., Hamilton.	.....
" 6	"	68110	Jeff Davis & Co., Grand Forks.	1 "	75	Kelly Douglas & Co., Vancouver.	.....
DISTRICT OF VANCOUVER—							
Oct. 27	Cream of Tartar.	55376	David Spencer, Ltd., Vancouver.	1 lb..	70	Empress Mfg. Co., Vancouver.	....
" 27	"	55377	W. H. Edgett, 118 Hastings St., W., Vancouver.	1 "	70	" "	... .
" 28	"	55378	Slater Bros., 131 Hastings St., E., Vancouver.	1 "	60	Kelly, Douglas & Co., Ltd., Vancouver.	....
" 28	"	55379	The Cow Butter Store, 195 Hastings St., E., Vancouver.	3 tins.	45	Empress Mfg. Co., Vancouver.	....

SESSIONAL PAPER No. 14

CREAM OF TARTAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Acidity C.C. $\frac{n}{10}$ per 100 grams.	Bitartrate of potash expressed as weight.	Lime (Ca O).	Phosphates.	Sulphates.	Starch.	Alumina ($Al_2 O_3$).		
A. W. R. MARKLEY, INSPECTOR.									
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
Sold in bulk	474	89·2	Present	....	....	....	...	52286	Genuine. Commercial Grade.
Guaranteed Pure	496	93·2	"	....	....	....	....	52287	" "
Royal Shield Brand.	532	100·0	....	....	....	....	....	52288	" Meets B. P. requirements
Sold in bulk.	498	93·6	Present.	....	....	....	....	52289	" Commercial Grade.
"	494	92·8	"	....	....	....	....	52290	" "
"	532	100·0	....	....	....	....	....	52291	" Meets B. P. requirements.
Taxedo Brand.	528	99·2	....	....	....	....	....	52292	" "
"	532	100·0	....	....	....	....	....	52293	" "
Guaranteed Chemically Pure.	532	100·0	....	....	....	....	....	52294	" "
Pure Cream of Tartar.	532	100·0	....	....	....	....	....	52295	" "
THOS. PARKER, INSPECTOR.									
Nabob	528	99·2	....	....	....	....	....	61891	Genuine. Meets B. P. requirements.
....	489	92·0	Present	....	....	....	....	61892	" Commercial Grade.
....	532	100·0	....	....	....	....	....	61897	" Meets B. P. requirements.
....	530	99·6	....	....	....	....	....	61898	" "
....	496	93·2	Present	....	....	....	....	68109	" Commercial Grade.
....	530	99·6	....	....	....	....	....	68110	" Meets B. P. requirements.
E. J. MORGAN, INSPECTOR.									
Sold in bulk	110	....	....	....	....	16·46	....	52276	Contains carbonate. Is a baking powder. Purchased in country.
"	530	99·6	Present	....	....	....	....	61887	Genuine. Meets B. P. requirements.
....	517	97·2	"	....	....	....	....	52285	" "
Empress Brand	532	100·0	....	....	....	....	....	52278	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF VANCOUVER—							
1915.							
Oct. 28	Cream of Tartar.	55380	A. & C. Grocery, 520 Granville St., Vancouver.	1 lb..	65	Empress Mfg. Co., Vancouver.	
" 28	"	55381	Jas. A. Lowe, 1002 Seymour St., Vancouver.	3 pkgs	45	Wm. Braid & Co., Vancouver.	
Nov. 11	"	55382	W. H. Walsh, Seymour and Davie Sts., Vancouver.	1 lb..	70	" "	
" 11	"	55383	London Grocery Co., 1048 Granville St., Vancouver	3 pkgs	45	Kelly, Douglas & Co., Vancouver.	
" 12	"	55384	New Westminster Co-Operative Association, New Westminster.	1 lb..	60	" "	
" 12	"	55385	Fraser River Supply Co., 548 Columbia St., New Westminster.	1 "	25	" "	
DISTRICT OF VICTORIA—							
Nov. 10	Cream of Tartar.	66615	Windsor Grocery Co., 817 Govt. St., Victoria.	1 lb..	80	Pioneer Coffee and Spice Mills, Victoria.	
" 10	"	66621	The West End Grocery Co., Ltd., 1002 Govt. St., Victoria.	3 tins.	45	Empress Mfg. Co., Vancouver.	
" 11	"	66626	Dixi H. Ross & Co., 1317 Govt. St., Victoria.	1 lb..	40	E. W. Gillett & Co., Co., Toronto.	
" 12	"	66631	Acton Bro., 1317 Douglas St., Victoria.	1 "	90	Wm. Braid & Co., Vancouver.	
" 12	"	66634	H. O. Kirkham & Co., 1109 Govt. St., Victoria.	1 "	75		Kelly, Douglas Co., Vancouver.
" 15	"	66638	Copas & Young, 631 Fort St., Victoria.	1 "	70	E. W. Gillett & Co., Toronto.	
" 15	"	66639	Henry W. Driver, 856 Yates St., Victoria.	1 "	60		W. H. Malkin Co., Vancouver
" 23	"	66643	E. B. Jones, 1800 Cook St., Victoria.	1 "	70		W. A. Jameson, Coffee Co., Victoria.
" 23	"	66644	Wellburn's Cash Grocery Store, 1058 Pandora Ave., Victoria.	1 "	60	E. W. Gillett Co., Toronto.	
" 24	"	66645	W. A. Jameson Coffee Co., 754 Broughton Ave., Victoria.	3 tins.	55	Nat. Aniline and Chem. Co., Chicago, U.S.A.	

SESSIONAL PAPER No. 14

CREAM OF TARTAR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Acidity C.C. N per 100 grams.	Bitartrate of potash expressed as weight.	Lime (Ca O).	Phosphates.	Sulphates.	Starch.	Alumina $Al_2 O_3$).	No. of Sample.	Remarks and Opinion of the Chief Analyst.

Concluded.

		p.c.	p.c.	p c	p.c.	p.c.	p. c.		
Sold in bulk....	485	91·2	Present.	.....	Present.	...	.. ...	55380	Genuine. Commercial grade.
... .	525	98·8	"	.....	... ..	.....	.....	55381	" Meets B. P. requirements.
Sold in bulk	498	93·6	"	... ..	.... .	.....	.....	55382	Genuine. Commercial grade.
Nabob Brand...	487	91·6	"	.....	...	...	.....	55383	" " "
Sold in bulk	525	98·8	.....	.. .	.....	....	....	55384	Genuine. Meets B. P. requirements.
Sold as compound.	436	..	....	.....	21 2	36 36	... .	55385	Sold as compound.

D O'SULLIVAN, INSPECTOR.

....	523	98 4	Present.	. ....	....	.. ..	.. .	66615	Genuine. Meets B. P. requirements.
Empress Brand.	530	99·6	. ...	.....	.....	.....	.....	66621	" " "
Bulk	532	100 0	...	.	...	.....	....	66626	" " "
Braid's Best ...	504	94 8	Present.	. ...	. .	..	....	66631	Genuine. Commercial Grade
Nabob.....	481	90 4	"	.....	. .	...	...	66634	" " "
.. ..	532	100·0	. ..		..	..	...	66638	" Meets B. P. requirements
Dalley's Pure . .	487	91 6	Present	.....	.....	.	...	66639	Genuine. Commercial Grade
....	532	100·0	...	.	..	.	.	66643	Genuine. Meets B. P. requirements
Gillett's Ground Cream of Tartar.	532	100 0						66644	" " "
Jamieson's Victoria Brand.	532	100 0						66645	" " "

APPENDIX Z[1].

BULLETIN No. 336—TINCTURE OF GINGER.

OTTAWA, March 29, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue,

SIR,—The accompanying report has to do with sixty-five (65) samples purchased as Tincture of Ginger, between September and December of last year.

This tincture is a solution of the oleo-resin of ginger in strong alcohol. The British Pharmacopœia prescribes alcohol of 90 per cent; that of the United States, alcohol of 94·9 per cent, both by volume. Unless strong alcohol is employed, the oleo-resin of ginger is not obtained in solution.

Experimental work recorded in Bulletin No. 110, demonstrated that the resins in solution, from different varieties of ginger, may vary from 0·260 per cent. (weight) to 0·499 per cent. Moor *(Suggested Standards, p. 140)* quotes many authorities who find from 0·290 to 0·680 per cent. Siggins *(The National Dispensatory)* finds from 0·480 to 0·700 per cent. T. Barclay (Pharm. Jour., December, 1898) proposes 0·400 per cent oleo-resin as a standard below which a satisfactory tincture should not be recognized.

The specific gravity of the tincture should lie between 0·835 and 0·840. The loss of alcohol in making the tincture need not exceed one per cent. (See Bulletin 110, p. 13).

Reasonable allowance must be made for variation due to the natural differences found in commercial ginger, for losses in manufacture, and in dispensing. With these considerations in mind I would suggest the following limits:—

Specific gravity of tincture	0·830 to 0·850
Alcohol content (vol. p.c.)	80·00 to 90·00 +
Oleo-resins, per cent	0·250 to 0·700

The limits suggested allow a very wide margin, and it is hoped that experience will justify a closer approximation to a definite standard. Our experience of this article as found on the Canadian market is restricted to reports contained in Bulletins Nos. 34, 110, 179, and the present report.

It is to be remembered that the different pharmacopœias describe alcoholic preparations of ginger, which more or less resemble the B.P. tincture. This last is made with the use of 100 grammes of ginger to 1,000 cubic centimetres of alcohol, or, 1 part by weight in 10 parts by volume.

The U. S. P. tincture, is made with 200 grammes ginger to 1,000 cubic centimetres of alcohol, 1 part by weight to 5 parts by volume.

The U.S. Pharmacopœia (8th revision) describes a Fluid Extract of Ginger, made by the use of 1,000 grammes of ginger percolated with 1,000 cubic centimetres of alcohol, or, 1 part by weight to 1 part by volume.

The British Pharmacopœia of 1885 defined a strong tincture of ginger (essence of ginger) made from 50 parts by weight of ginger and 100 parts of alcohol (volume), or 1 part by weight, to 2 parts by volume.

Finally the Canadian Formulary of 1900, defines a solution of ginger (Liquor Zingiberis) made from 50 parts of the strong tincture, 33·5 parts sugar and distilled water to produce 100 parts by volume.

It is quite apparent from the results of analysis here recorded, that our inspectors have, in many instances, been supplied, with one or other of these preparations, instead of the Tincture.

The following summary gives the results of analysis in brief:—

Samples found to meet legal requirements	41
" but slightly below requirements	9
" Essence, not Tincture of Ginger	13
" below requirements, and adulterated under the Act	2
Total	65

I beg to recommend publication of this report as Bulletin No. 336.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

BULLETIN No. 336—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF NOVA SCOTIA—							
1915.							
Oct. 20	Tincture of Ginger.	64276	C. A. Barnstead, Halifax, N.S.	12 ozs.	1.30	Vendor	
" 27	" ..	64277	Nat. Drug Co., Halifax, N.S..	12 "	1.02	Vendors	
" 28	" ..	64278	Brown Bros. & Co., Halifax, N.S.	12 "	1.05	"	
Dec. 7	" ..	64279	H. E. Wilson, Windsor, N.S..	12 "	1.00	Vendor	
" 8	" ..	64280	L. C. Gardner, Yarmouth, N.S.	12 "	90	"	
" 8	" ..	64281	B. F. Trask, Yarmouth, N.S..	12 "	1.00	"	
DISTRICT OF QUEBEC CITY—							
Oct. 6	Extrait Gingembre.	56556	Jos. Masson, 808 St. Valier, Quebec.	12 ozs.	2.50	Parke, Davis Co.	Mfrs.
" 12	" ..	56557	Willis, 4 St. Jean, Quebec....	12 "	1.50	Vendor	
" 13	" ..	56558	E. D. Morin & Cie, 113 Cote de la Montagne, Quebec.	12 "	1.50	Parke, Davis Co.	Mfrs.
" 13	" ..	56559	V. Giroux, 11 St. Pierre, Quebec.	12 "	2.40	Horners	Mfr
" 15	" ..	56570	W. Brunet, 140 St. Joseph, Quebec.	12 "	2.50	Prost Co	"
" 15	" ..	56560	J. B. Giroux. 387 St. Joseph, Quebec.	12 "	2.75	Frank W. Horner, Montreal.	"
" 15	" ..	56561	J. P. Plamondon, 122 St. Joseph, Quebec.	12 "	2.50		
" 15	" ..	56562	L. E. Martel, 51 St. Joseph, Quebec.	12 "	1.80	Davis, Lawrence Co.,	E. Lachance
" 16	" ..	56563	M. Dion, 107 Rue Commercial, Quebec.	12 "	2.90	Parke, Davis Co.	Mfrs.
DISTRICT OF MONTREAL—							
Nov. 29	Tincture of Ginger.	67281	J. A. Harte, 148 Notre Dame St. W., Montreal.	12 ozs.	1.20	Vendor	
" 29	" ..	67282	Birk's Pharmacy, 340 Notre Dame St. W., Montreal,	12 "	1.50	Lyman's Ltd	
" 29	" ..	67283	Leduc's Drug Store, Chaboillez Square, Montreal.	12 "	1.25	"	
" 29	" ..	67284	A. LeBean, 465 St. James St, Montreal	12 "	1.50	"	
" 29	" ..	67285	Nat. Drug and Chem. Co., Montreal.	12 "	90	Vendors	
" 30	" ..	67286	Davis & Lawrence, Montreal..	12 "	1.00	"	

SESSIONAL PAPER No. 14

TINCTURE OF GINGER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. Gr. at 15·5° C.	Alcohol by weight.	Alcohol by volume.	Total Solids.		
R. J. WAUGH, INSPECTOR.						
		p.c.	p.c.	p.c.		
....	0·8309	.....	89·44	0·35	64276	Meets legal requirements.
....	0·8448	.....	85·92	3·37	64277	Essence of ginger.
.....	0·8267	.....	92·40	0·52	64278	Meets legal requirements.
....	0·8276	.....	90·80	0·50	64279	" "
Made from Smarts & Co., Fluid Extract. B.P.	0·8341	.....	89·28	0·42	64280	" "
....	0·8348	.....	89·72	0·52	64281	" "
F. X. W. E. BELAND, INSPECTOR.						
....	0·8542	.....	82·20	4·48	56556	Essence of ginger.
.....	0·8255	.....	92·04	0·41	56557	Meets legal requirements.
....	0·8564	.....	81·48	5·43	56558	Essence of ginger.
....	0·8442	.....	86·36	3·00	56559	" "
....	0·8326	.....	89·36	3·62	56570	" "
.....	0·8445	.....	86·77	2·98	56560	" "
....	0·9706	.....	29·12	1·21	56561	Adulterated. Alcohol too low
....	0·8810	.....	74·32	5·02	56562	Essence of ginger. Alcohol rather low.
....	0·8470	.....	84·76	4·42	56563	Essence of ginger.
D. J. KEARNEY, INSPECTOR.						
....	0·8509	81·05	86·36	0·76	67281	Meets legal requirements
....	0·8717	72·08	78·72	0·17	67282	Resin and Alcohol slightly too low
....	0·8300	87·73	91·28	0·73	67283	Meets legal requirements
.....	0·8269	90·32	93·52	0·74	67284	" "
....	0·8393	85·46	89·84	0·59	67285	" "
.....	0·8417	84·92	90·20	0·54	67286	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF MONTREAL—							
1915.							
Nov. 30	Tincture of Ginger.	67287	Chas. E. Frosst & Co., Montreal.	12 oz.	1.05		
" 30	" ..	67288	Chapman Dart Co., Montreal.	12 "	1.00		
" 30	" ..	67289	Parke, Davis & Co., Montreal.	12 "	1.20		
" 30	" ..	67290	Lyman, Knox & Co., Montreal.	12 "	1.00		
DISTRICT OF OTTAWA—							
Sept. 30	Tincture of Ginger.	70526	T. Payment, Dalhousie St., Ottawa.	12 oz.	1 35	Vendor	
" 30	" ..	70527	Brethour's Drug Store, Bronson Ave., Ottawa.	12 "	1.35	"	
" 30	" ..	70528	C. H. Lewis, Bay St., Ottawa.	12 "	1.35	"	
Oct. 14	" ..	70529	Blair C. Roger, Main St., Ottawa East.	12 "	1.35	"	
" 15	" ..	70530	W. A. Henderson, Bank St., Ottawa.	12 "	1.35	"	
" 15	" ..	70531	F W. Day. Bank St., Ottawa.	12 "	1·35	"	
" 15	" ..	70532	A. J. Brownlee, Bank St., Ottawa.	12 "	1.35	"	
" 15	" ..	70533	Allan & Cochrane, Bank and Sparks Sts., Ottawa.	12 "	1.35	"	
" 15	" ..	70534	E. D. Story, Bank St., Ottawa.	12 "	1.95	Nat. Drug Co., Ottawa.	
" 19	" ..	70545	P. J. Nolan, Wellington St., Ottawa.	12 "	1.35	Vendor	
DISTRICT OF TORONTO—							
Oct. 25	Tincture of Ginger.	69925	Owl Drug Stores, Ltd, 336 Bloor St. west, Toronto.	12 oz.	1.25	Nat. Drug and Chem. Co., Ltd., Toronto.	
" 25	" ..	69927	Tamblyns, Ltd., 972 Bloor St. west, Toronto.	10 "	1.25	Vendors	
" 25	" ..	69928	W. H. C. Summerfeldt, 1096 Bloor St. west, Toronto.	12 "	1.35	E. B. Shuttleworth Co., Ltd., Toronto.	
" 25	" ..	69929	M. P. Rose, 1204 Bloor St. west, Toronto.	12 "	1.00	Vendor	
" 26	" ..	69930	F. B. Bunting, 221 Wellesley St., Toronto.	12 "	1.00	Unknown	
" 26	" ..	69931	S. M. Green, 556 Parliament St., Toronto.	12 "	1.00	Vendor	
" 26	" ..	69932	W. H. Robson, 296 Gerrard St. east, Toronto.	12 "	1.20	Nat. Drug and Chem. Co. Ltd., Toronto.	

SESSIONAL PAPER No. 14

TINCTURE OF GINGER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.				No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Sp. gr. at 15·5° C.	Alcohol by weight.	Alcohol by volume.	Total Solids.		
Concluded.						
		p. c.	p. c.	p. c.		
....	0·8292	90 32	93·52	0·39	67287	Meets legal requirements.
....	0·8819	67 11	74·32	0 32	67288	Slightly below strength in alcohol.
....	0·8348	85·46	89 84	0 92	67289	Nearly meets legal requirements.
....	0·8799	67·56	74·72	3·17	67290	Slightly below strength in alcohol. Is essence; not tincture of ginger.
J. A. RICKEY, INSPECTOR.						
. . ..	0 8297	88 81	92 40	0 38	70526	Meets legal requirements.
... ...	0 8282	90 88	93 92	0 46	70527	" "
....	0·8269	90 32	93 52	0 60	70528	" "
.. . .	0 8251	92 01	94 72	0·35	70529	" "
Made from Burrows & Wellcome's concentrate.	0 8254	90 88	93 92	0 39	70530	" "
. ...	0 8279	89 30	92 76	0 59	70531	" "
... . ..	0 8276	92 56	95 12	0 52	70532	" "
....	0 8228	88 81	92 40	0 40	70533	" "
. . ..	0 8398	83 57	88 36	0 52	70534	" "
.....	0 8263	89 36	92 76	0 44	70540	" "
H. J. DAGER, INSPECTOR						
....	0 8497	80 16	85 61	3 24	69025	Essence of ginger.
....	0 8240	91 43	94 32	0 47	69027	Meets legal requirements.
Bottle labelled Tincture Ginger fort.	0 8339	87 35	91 28	2 60	69028	Essence of ginger.
....	0 8365	85 92	90 20	0 82	69029	Meets legal requirements.
....	0 8985	60 67	68 32	1 29	69030	Alcohol too low and solids high. Artificially coloured.
....	0 8281	88 36	92 04	0 54	69031	Meets legal requirements.
....	0 8403	84 04	88 72	0 52	69032	" "

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
							DISTRICT OF TORONTO—
1915.							
Oct. 26	Tincture of Ginger.	69933	Liggetts, Ltd., 224 Yonge st., Toronto.	12 ozs.	1.00	Unknown	
" 26	" ..	69934	T. Eaton Co., Ltd., Yonge and Queen sts., Toronto.	12 "	75	Vendors	
" 26	" ..	69935	The Hennessey Drug Stores, Ltd., 117 Yonge st., Toronto.	12 "	1.25	E. B. Shuttleworth Co., Ltd., Toronto.	
							DISTRICT OF VANCOUVER—
Oct. 30	Tincture of Ginger.	55396	Vancouver Drug Co., 405 Hastings st., W., Vancouver, B.C.	12 ozs.	1.20	Vendors	
" 30	" ..	55397	E. S. Knowlton, 1 Hastings st., E., Vancouver, B.C.	12 "	1.50	Vendor	
" 30	" ..	55398	Owl Drug Co., Ltd., 399 Powell st., Vancouver, B.C.	12 "	1.20	Vendors	
" 30	" ..	55399	Capitala Pharmacy, 1100 Davie st., Vancouver B.C.	12 "	1.00	"	
Nov. 1	" ..	55400	Georgia Pharmacy, 699 Granville st., Vancouver, B.C.	12 "	1.50	"	
" 1	" ..	55401	David Newall, 994 Granville st., Vancouver, B C.	12 "	1.20	Vendor	
" 2	" ..	55402	Woods' Pharmacy, 601 Hastings st., W , Vancouver, B.C	12 "	1.50	"	
" 2	" ..	55403	Red Star Drug Store, 53 Cordova st., W., Vancouver, B.C	12 "	1.00	"	
" 2	" ..	55404	MacLennan's Drug Store, 750 Columbia st., New Westminster, B.C.	12 "	1.50	"	
" 2	" ..	55405	H. Ryall, New Westminster, B.C.	12 "	1.50	"	
							DISTRICT OF VICTORIA—
Nov. 8	Tincture of Ginger.	66605	John Cochrane, 1300 Douglas st., Victoria, B.C.	12 ozs.	1.25	May & Baker, Ltd., Battersea, London, S.W.	
" 8	" ..	66606	W. Jackson & Co., 1411 Douglas st., Victoria, B.C.	12 "	1.20	Lymans, Ltd., Montreal.	
" 8	" ..	66607	Hall & Co., 702 Yates st, Victoria, B.C.	12 "	1.25	Vendors	
" 8	" ..	66608	Cyrus H. Bowes, 1228 Government st., Victoria, B.C.	12 "	1.25	Vendor	
" 8	" ..	66609	F. J. Williams, Fort and Government sts., Victoria, B.C.	12 "	1.25	"	
" 8	" ..	66610	Geo. H. Fraser & Co., 912-914 Government st., Victoria, B.C.	12 "	1.25	Vendors	
" 8	" ..	66611	W. S. Terry, P.O., Box 504, Victoria, B.C.	12 "	1.20	Nat. Drug and Chem. Co., Victoria, B.C.	
" 8	" ..	66612	D. E. Campbell, Douglas and Fort sts., Victoria, B.C.	12 "	1.25	Vendor	
" 8	" ..	66613	Ivel's Pharmacy, 1415 Government st., Victoria, B C.	12 "	1.20	"	
" 8	" ..	66614	Aronson & Elwin, Fort & Cook sts., Victoria, B.C.	12 "	1.20	Vendors	

TINCTURE OF GINGER.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis. Sp. gr. at 15·5° C.	Alcohol by weight.	Alcohol by volume.	Total Solids.	No. of Sample.	Remarks and Opinion of the Chief Analyst.
Concluded.						
		p.c.	p. c.	p. c.		
....	0·8538	78 63	84·36	0 68	69933	Meets legal requirements.
.....	0·8243	92·56	95·12	0·46	69934	" "
....	0·8446	82 09	87·16	1·84	69935	Essence of Ginger.
E. J. MORGAN, INSPECTOR.						
Prepared from Concentrated Extract.	0·8253	.....	91·60	0·83	55396	Meets legal requirements.
" "	0 8346	.....	88 20	2 21	55397	Essence of Ginger.
" "	0·8271	.....	90·80	0·80	55398	Meets legal requirements.
" "	0·8506	.....	83·40	1 00	55399	Nearly meets legal requirements.
" "	0 8252	.....	91·00	0 90	55400	" " "
" "	0 8228	.....	91 60	0 68	5540	Meets legal requirements.
" "	0·8232	.....	91 00	0 84	55402	" "
" "	0·8335	.....	88 80	0 75	55403	" "
" "	0 8272	.....	90 00	0 83	55404	" "
" "	0·8320	.....	88·40	0·95	55405	Nearly meets legal requirements.
D. O'SULLIVAN, INSPECTOR.						
.....	0 8293	.....	91 00	0 83	66605	Meets legal requirements.
.....	0 8255	.....	91 00	1·08	66606	Nearly meets legal requirements.
.....	0 8431	.....	85 80	0 90	66607	" " "
.....	0 8230	.....	92 40	0 73	66608	Meets legal requirements.
.....	0 8261	.....	91 60	0 63	66609	" "
.....	0 8256	.....	92 20	1 00	66610	Nearly meets legal requirements.
.....	0 8272	.....	92 20	0 68	66611	Meets legal requirements.
.....	0 8241	.....	92 20	0 66	66612	" "
.....	0 8254	.....	92 40	0 63	66613	" "
.....	0 8538	.....	85 20	0 87	66614	" "

APPENDIX Z².

BULLETIN No. 337—LEMON FLAVOURING EXTRACT.

OTTAWA, March 31, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue,

SIR,—I have the honour to report upon the results of analysis of an inspection of Lemon Flavouring Extract.

This comprises 223 samples obtained by our inspectors in July, August and September of last year.

Lemon Flavouring Extract has been made the subject of inspection on three former occasions and results reported as follows:—

Bulletin 89, 1903— 27 samples.
Bulletin 114, 1906—110 "
Bulletin 198, 1910— 75 "

The last named report contains information intended to furnish a basis for standardization of the article, and this information is summarized thus:—

1. Extract of lemon is valued for its characteristic flavour.

2. This flavour depends upon the presence of certain constituents of lemon oil.

3. The terpenes which constitute more than 90 per cent of lemon oil, are not important from the point of view of contributing flavour to the oil.

4. It is mainly to dissolve the terpenes of lemon oil that strong alcohol is used as a solvent.

5. The citral, citronellal, and other flavour giving components of lemon oil, constitute less than 10 per cent of the oil, and may be effectively got into solution, from the oil, by weak alcohol.

6. If these flavouring components are derived immediately from fresh peel, a strong alcohol must be employed, on account of the water present in the peel. The alcohol content of the finished extract will, however, be low.

7. A good flavouring extract can be prepared either from fresh lemon peel, from lemon oil, or from so called terpeneless lemon oil. It is according to commercial usage to prepare it from the lemon oil, rather than from the peel.

8. A weak alcohol (proof strength) suffices to dissolve the flavour giving constituents from the oil; and the employment of a stronger alcohol merely adds to the cost of the extract, without corresponding improvement of quality.

9. The citral of lemon-grass oil is not to be confounded with that from true lemon oil. Both citrals are more or less indefinite bodies, being essentially aldehydic, but associated with aromatic substances which are lemon-like in one case and more or less verbena-like in the other. The distinction between them is not, at present, evident to chemical methods.

10. Methods for the quantitative determination of citral are being studied; and it is hoped that a practical method may be discovered, thus enabling Lemon Extract to be judged by determination of the component to which it owes its commercial importance.

By an Order in Council of 17, Oct. 1912 (published as Departmental Circular G. 1045) Lemon Extract is defined as below:—

> "Lemon Extract is the flavouring Extract prepared from lemon peel, or from oil of lemon, and contains, along with more or less of the terpenes of Lemon Oil, not less than two tenths (0.2) of one per cent of citral derived from Oil of Lemon."

This definition recognizes that the terpene content of lemon oil (consisting of above 90 per cent of the whole) is of secondary importance as a flavouring material. The flavour-giving components of lemon oil are essentially citral and citronellal, with smaller amounts of other substances. It remains true, however, that some difficulty is found in fully removing these flavour-giving components of the oil, without at the same time taking into solution a large portion, or even the whole of the terpenes; and the successful manufacture of a terpeneless lemon flavouring extract demands great care, and experience, as will be seen in the further study of this report.

The Order in Council just mentioned defines a Terpene Lemon Extract, as follows:—

> "Terpene lemon extract is the flavouring extract prepared as above described, and contains not less than five (5) per cent of Oil of lemon, and not less than two tenths (0.2) of one per cent of Citral, derived from oil of lemon."

This article (terpene lemon extract), is identical with the ordinary lemon extract of the U.S.A. regulations. Its manufacture demands the use of strong alcohol, without which the terpene content of oil of lemon cannot be held in solution. It has the advantage of assuring the corresponding citral content; while, in order to obtain the required amount of citral in solution where a weaker alcohol is employed, a high degree of care and skill are demanded on the part of the manufacturer.

The method employed in Citral determination in these extracts is that described by Hiltner (Jour. Ind. and Engin. Chemistry, 1909, p. 798). The method appears in Leach, Food Inspection and Analysis, Second Edition, p. 868; also in Parry's "Food and Drugs", 1911, p. 264; and in Abstract. Journ. Soc. Chem. Industry, 1910, p. 172.

Hiltner's work indicates a degree of accuracy which makes possible the determination of citral within 0.01 gramme per 100 cc. where amounts varying from 0.025 to 0.200 are present.

Work done in this laboratory shows that a somewhat less degree of accuracy than that indicated above, is obtainable with commercial extracts, possibly due to progressive oxidation of the aldehyde in presence of sunlight, and on prolonged keeping. Still another difficulty appears where the article is artificially coloured, a concession permitted without declaration by Order in Council of 9th January, 1915 (G. 1167).

The total error due to combination of all these causes may amount to 0.03 citral; and I have taken the precaution of allowing a departure of 0.05 from the standard requirements of 0.20 citral per 100 cc. before declaring the sample adulterated, under the Act. In no case has this conclusion been reached until two more determinations were made upon the sample.

It is regrettable that the term *adulterated* must apply to samples sold as genuine, but found to contain less than the minimum amount of citral. Section 3 (g) of the Act, defines as adulteration any failure to reach a standard prescribed by Order in Council. To the ordinary reader, the word implies purposeful addition of a fraudulent kind. This meaning must not be read into the word as used in this report. It is certain that the large number of failures to meet our standards are mainly due to faulty methods of manufacture, and not to intentional fraud. As I have already

pointed out, the attempt to get into solution a proper amount of citral by use of a weak alcohol (less than 50 per cent. strength) makes demands that can only be successfully met by much experience and acquired skill. That the great majority of these extracts are intended to be trpeneless, is shown by the following facts:—

Out of 223 samples, only 10 samples contain above 5 per cent lemon oil, only 15 samples above 4 per cent, only 23 samples above 3 per cent, and only 40 samples above 2 per cent. All samples containing as much as 3 per cent lemon oil are found to contain the required minimum amount of citral. It is also noteworthy that, with exception of three or four samples, all those found to contain less than the standard minimum amount of citral are made with alcohol of less than 50 per cent strength.

The results of this inspection my be summarized as follows:—

Samples found to meet standard	83
" sold as compound	68
" sold mistakenly	3
" adulterated under the Act	69
Total	223

I beg to recommend publication of this report as Bulletin No. 337; and I would further respectfully suggest that for this first inspection of Lemon Extract since legalization of Standards, the presence of 0.10 per cent of citral be recognized as proving good faith on the part of the manufacturer. This without prejudice to later inspections.

I have the honour to be, Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
			DISTRICT OF NOVA SCOTIA—					
1915.								
Sept. 9	Lemon Flavouring Extract.	64236	Payzant & King, Halifax.	3 bots.	24	E. Gass, Halifax.	Mfr . . .	Maker's name on label stated Tangalla Messina, Perfecto Brand.
" 9	"	64237	Nat. Drug and Chem. Co., Halifax.	3 "	40	Vendors.....	.....	Queen Brand.
" 21	"	64238	J. L. Wilson & Co., Halifax.	3 "	30	Nat. Drug and Chem. Co., Halifax.	Mfrs.....	Sovereign Brand.
" 21	"	64239	R. B. Secton & Co., Halifax.	3 "	40	Robinson Mfg. Co., Toronto.	"	.....
" 22	"	64240	John Tobin & Co., Halifax.	3 "	59	Vendors.....	.....	.....
			DISTRICT OF NOVA SCOTIA—					
Aug. 10	Lemon Extract.	69806	A. J. Roop, New Glasgow.	3 bots.	30	G. E. Barbour Co., Ltd., St. John.	Mfrs.. .	.....
" 10	"	69807	Jas. Cavanagh, New Glasgow.	3 "	30	Henri Jonas & Co., Montreal.	"	.....
" 11	"	69808	S. M. Lockhart & Co., New Glasgow.	3 "	30	G. E. Barbour Co., Ltd., St. John.	"	.....
" 11	"	69809	" " ..	3 "	75	Pure Gold Mfg. Co., Toronto.	"	.....
" 11	"	69810	2 Barker's Co., New Glasgow.	3 "	30	H. C. & S. Co.	"	.....
" 13	"	69811	James McArthur, New Glasgow.	3 "	75	Shirriff's, Ltd., Toronto.	"	.....
" 13	"	69812	C. Grant, New Glasgow.	3 "	45	Maritime S. & C. Mills, St John.	"	.....
" 14	"	69813	F. W. Curry, Stellarton.	3 "	30	F. F. Dalley Co., Hamilton, Ont.	R. McGregor & Sons, New Glasgow	.....
" 14	"	69814	C. A. Fraser & Co., Stellarton.	3 "	30	Baird Co., Ltd., Woodstock, N.B.	.....	.....
" 17	"	69815	Abraham Myette, Tracadia, N.S.	...	30	The Regal Mfg. Co, St. John, N.B.	Mfrs... .	.....

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Specific gravity at 15·5° C.	Alcohol by volume.	Polarization in 2 dm. tube at 20° C.	Equivalent Lemon Oil.	Citral.	Refractive Index of oil.	—		
R. J. WAUGH, INSPECTOR.									
		p. c.		p. c.	p. c.				
Tangalla & Co. Perfecto Lemon Essence.	0·9774	18·8	0·0	0·60	0·08	. .		64236	Below standard in citral. Adulterated.
Nat. Drug and Chem. Co. Queen Mixture Extract Lemon.	0·9141	59·6	+ 0·4	0·12	0·22	. .		64237	Sold as Mixture. Contains 0·22 p. c. citral.
Nat. Drug and Chem. Co. Sovereign Pure Extract Lemon.	0·9249	54·7	0·5	0·16	0·15	. .	. . . .	64238	Genuine.
Robinson Mfg. Co. Quint Essence Pure Lemon Extract.	0·9555	37·7	0·0	0·00	0·10	. . .	. . . . .	64239	Below standard in citral.
Jno. Tobin & Co. Lemon Flavouring Extract.	0·8951	67·9	+ 0·4	0·12	0·15	. .	. . . .	64240	Genuine.
WALTER O. PETIPAS, TEMPORARY INSPECTOR.									
Lemon Extract	0·9310	50·3	0·0	0·0	0·17	. .		63·06	Genuine.
Lemon Mixture	0·8771	72·4	+ 7·8	2·41	0·18			63·07	Sold as Mixture. Contains 2·41 p.c. lemon oil and 0·18 citral.
G. E. Barbour Co. Lemon Extract. Acorn Brand.	0·9316	50·0	0·1	0·12	0·18			63·08	Genuine.
Pure Gold Co. Pure Gold Flavouring Extract Lemon.	0·9338	50·3	0·3	0·16	0·16			63·09	. . .
Labelled Artificial . .	0·9770	19·3	0·0	0·00	0·10			63·10	Sold as artificial.
True Lemon Extract . .	0·9360	49·1	0·5	0·16	0·20			63·11	Genuine.
Labelled Compound . .	0·9711	25·0	0·0	0·0	0·08			63·12	Sold as compound.
Pure Lemon Extract . .	0·8511	80·6	12·8	4·00	0·10			63·13	Genuine, with 4 per cent lemon oil.
Baird Co., Ltd. Superior Flav. Extract Lemon Highly Concentrated.	0·9702	25·0	1·5	0·47	0·28			63·14	Genuine.
Lemon Extract Compound.	0·9670	28·8	0·0	0·00	Trace.			63·15	Sold as compound.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost. Quantity.	Cost. Cents.	Name and Address of Manufacturer or Furnisher as given by the Vendor. Manufacturer.	Furnisher.	Inspector's Report. (Is not an expression of opinion.)
						DISTRICT OF CAPE BRETON—		
1915.								
July 27	Lemon Flavouring Extract.	63818	H. V. Raymond, Sydney.	3 bots.	75	Gorman Eckert Co., London, Ont.	.....	.....
" 28	"	63821	C. B. Wholesale Grocery Co., Sydney.	3 "	36	Pure Gold Mfg. Co., Toronto.	.....	.....
" 28	"	63822	" " ...	3 "	39	G. E. Barbour Co., St. John.	.....	.....
" 28	"	63823	" " ..	3 "	36	F. F. Dalley Co., Hamilton.	.....	.....
" 28	"	63827	J. J. Turnbull, Sydney ..	3 "	33	Vendor	.....	.....
" 28	"	63828	W. T. Cleary, Sydney ...	3 "	30	Heron Leblanc Co., Montreal.	.....	.....
						DISTRICT OF PRINCE EDWARD ISLAND—		
July 14	Lemon Extract.	60343	Beer & Goff, Charlottetown.	3 bots.	30	Nat. Drug and Chem. Co., Ltd., Halifax.	.....	.....
" 14	"	60344	" " ..	3 "	30	Pure Gold Mfg. Co., Ltd, Toronto.	.....	.....
" 14	"	60345	Jenkin & Son, Charlottetown.	3 "	75	Henri Jonas & Co., Montreal.	.....	.....
" 15	"	60346	Prowse & Sons, Murray Harbour.	3 "	60	Chamberlain Med. Co., Toronto.	.....	.....
" 15	"	60347	" " ..	3 "	30	G. E. Barbour Co., Ltd., St. John.	.....	.....
" 15	"	60348	Mrs. Wm. Charon, Murray Harbour.	3 "	30	The Royal Standard Mfg. Co., Woodstock, N.B.	.....	.....
" 15	"	60349	David Bull, Murray Harbour.	3 "	30	G. E. Barbour Co.	.....	.....
" 16	"	60350	Coffin & Co., Charlottetown.	3 "	30	.....	.....	.....
" 16	"	60351	P. A. Smith, Charlottetown.	3 "	45	The Swan Mills, Toronto.	.....	.....
" 16	"	60352	J. G. Passmore, Charlottetown.	3 "	30	McLaren's, Ltd., Hamilton.	.....	.....

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Specific Gravity at 15·5° C.	Alcohol by Volume.	Polarization in 2 dm. Tube at 20° C.	Equivalent Lemon Oil.	Citral.	Refractive Index of Oil.	—		
E. T. MACKEEN, INSPECTOR.									
		p. c.		p. c.	p. c.				
Gorman, Eckert Co. Pure Flavouring Extract Lemon.	0·9341	50·1	+ 0·5	0·16	0·11	....	.....	63818	Below standard in citral.
Pure Gold Co. Gov. Standard Lemon. Pure Flavouring Extract.	0·9372	48·7	0·0	0·00	0·15	.....	.....	63821	Genuine.
G. E. Barbour. Pure Flavouring Lemon Extract.	0·9361	49·1	+ 0·5	0·16	0·12	....	.....	63822	Below standard in citral.
Dalley's Pure Fruit Lemon Extract.	0·8514	80·1	+14·0	4·37	0·20	.....	.....	63823	Genuine, with 4·37 p.c. lemon oil.
J. J. Turnbull. Essence Lemon.	0·8300	81·9	+29·6	9·25	0·31	.....	.....	63827	Genuine. Double normal strength.
"Crown" Lemon Flav. Extract.	0·9641	31·3	0·0	0·00	0·11	....	.....	63828	Below standard in citral.
WM. A. WEEKS, INSPECTOR.									
Nat. Drug and Chem. Co. Sovereign Extract Lemon.	0·9168	58·0	+ 1·6	0·50	0·25	.....	.....	60343	Genuine.
Pure Gold Mfg. Co Pure Gold Flavouring Extract Lemon.	0·8931	68·6	0·0	0·0	0·21	...	.....	60344	—
Henri Jonas & Co Royal Quint Essences Pure Lemon.	0·8532	79·4	+14·4	4·50	0·26	....	.....	60345	Genuine, with 4·5 p.c. lemon oil.
Chamberlain & Co. Superfine Lemon Extract.	0·9385	47·8	+ 0·4	0·12	0·12	...	...	60346	Below standard in citral.
....	0·9350	49·8	0·0	0·0	0·18	...	.....	60347	Genuine.
The Royal Standard, manufacturers of Royal Standard Fruit Flavouring Ext. Lemon.	0·9294	52·4	+ 0·6	0·18	0·15	...	.....	60348	—
G. E. Barbour Co Acorn Brand Lemon.	0·9275	53·5	0·0	0·00	0·23	...	.....	60349	—
Collin & Co. Lemon Pure Extract; colour added.	0·8551	77·6	+18·0	5·62	0·36	...	.....	60350	Genuine, with 5·62 p.c. lemon oil.
White Swan Mill Phœnix Ext. Lemon Mixture.	0·9788	17·4	0·0	0·00	0·06	...	.....	60351	Sold as a mixture.
McLaren's, Ltd Dew Drop Lemon Mixture.	0·9773	19·0	0·0	0·00	0·12	...	.....	60352	—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF NEW BRUNSWICK—								
1915.								
July 14	Lemon Flavouring Extract.	66131	W. A. Simonds, St. John.	3 bots.	36	Pure Gold Mfg. Co., Ltd., Toronto.	.....	.....
" 14	"	66132	" " ..	3 "	36	F. F. Dalley Co., Ltd., Hamilton.	.....	.. ..
" 14	"	66133	Dearborn & Co., St. John.	3 "	30	Vendors.....	....	....
" 15	"	66134	Nat. Drug and Chem. Co., St. John.	3 "	30	"	....	.....
" 16	"	66135	2 Barkers, Ltd., St John.	3	60	Estey & Curtis Co., Ltd., Hartland, N.B.	... .	Imperial Flavouring Mixture.
" 19	"	66136	Baird & Peters, St. John.	3 "	25	Gorman, Eckert & Co., London, Ont.	.....	. .....
" 19	"	66137	The Canadian Drug Co., Ltd., St. John.	3	25	Vendors.... .	....	....
21	"	66138	G. E. Barbour Co., Ltd., St. John.	"	54	"	.....	Acorn Brand.
" 21	"	66139	Puddington, Wetmore & Morrison, Ltd., St. John.	3 "	50	"	.....	Signet Brand.
Aug. 18	"	66140	The Baird Co., Ltd., Woodstock.	3 "	45	"	....	.. ..
DISTRICT OF QUEBEC PROVINCE J. E. AUDET, O. BROCHU								
July 7	Lemon Extract.	3607	Dorchester Lumber Co., St. Malachi, Dorchester County.	3 bots.	30	....	.. ..	Golden Star Brand, Montreal.
" 13	Extract Lemon.	3613	J. A. Cloutier, St. Odilon.	3 "	30	.. . .	Herron & Leblanc.	....
" 14	"	3917	P. C. M. Dechine, St. Germain.	3 "	25	Northrop & Lyman Co., Toronto.	.....	....
" 15	"	3619	A. Caillouette, St. Justine.	3 "	30	....	E. Morin, Quebec.	....
" 16	"	3623	P. K. Prevots, Ste. Rose.	3 "	30	..... .	Dr. Morin, Quebec.	.. ..

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Specific Gravity at 15·5 C.	Alcohol by Volume.	Polarization in 200m. Tube at 20° C.	Equivalent Lemon Oil.	Citral.	Refractive Index of Oil.	—		
JOHN C. FERGUSON, INSPECTOR.									
		p. c.		p. c.	p. c.				
Pure Gold Co. Pure Gold Lemon.	0·8907	69·6	0·6	0·00	0·25	..		66131	Genuine.
F. F. Dalley Co. Pure Fruit Extract Lemon.	0·8455	82·9	+11·4	3·56	0·15	...	.....	66132	Genuine, with 3·56 p.c. lemon oil.
Dearborn's Superior Lemon Extract.	0·8299	89·1	+ 7·6	2·06	0·17	...	.....	66133	Genuine, with 2·06 p.c. lemon oil.
Nat. Drug and Chem. Co. "Star Extract" Lemon.	0·8262	85·8	+21·2	6·62	0·30	....	..	66134	Genuine, with 6·62 p.c. lemon oil.
Estey & Curtis Co. Imperial Lemon Flavouring Extract.	0·8279	86·0	+19·2	6·00	0·32	..	.....	66135	Genuine, with 6 p.c. lemon oil.
Gorman, Eckert & Co. Oriental Lemon Extract Compound.	0·9688	27·1	0·0	0·00	0·05	..	.....	66136	Sold as compound
Canadian Drug Co. "Evangeline Brand" Lemon.	0·8246	89·8	+ 9·4	2·94	0·18	...	...	66137	Genuine, with 2·94 p.c. lemon oil.
G. E. Barbour Co. Acorn Brand Lemon Extract.	0·8246	86·0	+21·6	6·75	0·28	...	...	66138	Genuine, with 6·75 p.c. lemon oil.
Puddington, Wetmore, Morrison. "Signet Brand" Lemon Flavouring Extract.	0·9312	51·4	+ 1·0	0·31	0·15	...	...	66139	Genuine.
The Baird Co., Ltd. Lemon Superior Extract.	0·8255	85·4	+22·6	7·06	0·26	...	...	66140	Genuine, with 7·06 p.c. lemon oil.
N. CADIEUX, T. GENDREAU, TEMPORARY INSPECTORS.									
Lemon Extract ..	0·9731	23·01	+ 0·7	0·2	0·04	...	...	2807	Below standard in total Acidity.
" Extracts	0·9775	18·98	0·0		0·00	...	...	2815	Adulterated
Northrop & Lyman Co Lemon Concentrated Flavouring Extract.	0·9386	47·89	+ 0·2	...	0·20	...	...	2817	Genuine
Windsor Spice Mills Lemon Mixture "Reno"	0·9807	15·58	+ 0·8	0·20	None	...	...	2810	Sold as imitation
Lemon Double Strength	0·9759	20·33	+ 0·6		0·03	...	...	2825	Adulterated

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF QUEBEC PROVINCE—
1915.								
July 17	Extract Lemon.	3629	Gariépie, Ste. Prospère...	3 bots.	30	....	Carriere & Fils, Lévis.	.....
" 26	"	3634	J. A. Poulin, Valley Jct.	3 "	30	J. B. Reneaud & Co., Quebec.	.. . .	....
" 29	"	3639	J. O. Gagné, Ste. Hénédine.	3 "	30	....	Carriere & Fils, Lévis.	... .
" 22	Lemon Extract.	3596	Louis Corriveau, St. Michel.	3 "	30	Integrity Mills, Toronto.	.....	....
" 22	"	3599	Geo. Roy, St. Michel...	3 "	30	S. H. Ewing & Sons, Montreal.	. .....	.....
" 22	"	4407	J. A. Lemieux, St. Michel.	3 "	60	Henri Jonas Co., Montreal.	.....	.....
" 22	"	4414	J. E. Bouillard, St. Gervais.	3 "	33	Imperial Flavouring.	....	... .
" 22	"	4418	Benoit, Aubin, St. Lazare.	3 "	33	.....	Herron, Leblanc, Ltd., Montreal.	.....
" 22	"	4420	Alphonse Audet, St. Lazare.	3 "	33	.....	Drouin Freres, Rattray, Quebec.	.....
" 23	"	4424	Jean Ruel, Buckland ..	3 "	36	. .. .	J. B. Renaud.	....
" 12	Lemon Flavouring Extract.	296	J. B. Gougeon, St. Jerome.	3 "	60	....	Hudon & Orsali.	.....
" 19	"	308	L. W. Brissette, Ste. Agathe des Monts.	3 "	30	Jonas.....	.....	....
" 19	"	309	F. D. Hall, Ste. Agathe des Monts.	3 "	75	Dalley's ...	.....	.....
" 19	Lemon Extract.	314	H. Gareau, St. Faustin Station.	3 "	30	Jonas..... .	.....	....
" 19	"	317	H. Coté, St. Faustin Station.	3 "	30	Northrop & Lyman Co.	.....	.....
" 19	"	318	Jos. Gareau, St. Faustin.	3 "	30	"	....	....
Sept. 14	Extrait de Lemon.	325	E. St. Maurice, St. Eustache, Co. des deux Montagnes.	3 "	30	E. Lubon, Nice.	. .....	.....
" 14	"	328	Belair & Paquette, St. Eustache, Co. des deux Montagnes.	3 "	54	Henri Jonas & Co.	.....	. .....

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.								No. of Sample.	Remarks and opinion of the Chief Analyst.
	Specific gravity at 15·5° C.	Alcohol by volume.	Polarization in 2 dm. tube at 20° C.	Equivalent Lemon Oil.	Citral.	Refractive Index of Oil.	—			
Continued.										
		p. c.		p. c.	p. c.					
Morins' Citron Extract..	0·9667	29·04	+ 0·2	.....	0·07	....	.....		3629	Adulterated.
J. B. Renaud. Lemon Mixture.	0·9695	26·49	+ 0·8	0·20	0·04	.....	.....	...	3634	Sold as a mixture.
Lemon Mixture	0·9720	24·08	+ 0·2	....	0·03	.....	...	...	3639	"
Lemon Extract	0·9699	26·13	0·0	.....	0·10	.....	.....	...	3596	Below standard in citral.
Labelled Vanilla Mixture. Sample is Lemon.	0·9605	34·18	0·0	..	0·05	.....	...	....	3599	Sold as a mixture.
Mixture	0·8765	19·78	+ 7·5	2·5	0·10	1·4739	..	.....	4407	Sold as a mixture. Contains 2·5 p.c. lemon oil.
Pure Gold Mfg. Co. Imperial Flavouring Mixture Extract.	0·9530	39·47	+ 0·1	.....	0·08	....	.	.....	4414	Sold as a mixture
Red Cross Lemon Extract.	0·9652	30·40	+ 0·1	.....	0·05	..	.	....	4418	Adulterated.
Lemon Flavouring Extract.	0·9788	17·37	− 0·1	.	0·02	.....	.....	....	4420	"
Lemon Mixture.	0·9705	25·57	0·0	. .	0·01	..	...	...	4424	Sold as Mixture.
Artificial Lemon Extract.	0·9562	37·20	+ 0·2	.. .	0·20	.....	...	...	296	Sold as artificial, but contains 0·20 p.c. citral.
Lemon Extract	0·8721	76·91	+ 7·8	2·4	0·11	. .	.		308	Below standard in citral, with 2·4 p.c. lemon oil.
Dalley's Pure Lemon Extract.	0·8479	85·63	+ 15·3	4·8	0·30	..	...	...	309	Genuine, with 4·8 p.c. lemon oil.
Lemon Mixture	0·8750	75·83	+ 7·0	2·1	0·16	.....	...	.....	314	Sold as a mixture. Contains 2·1 p.c. lemon oil and 0·16 citral.
Lemon Extract	0·9476	42·62	− 0·3	.....	0·10	.....	.	.....	317	Below standard in citral.
Gold Seal Lemon Extract.	0·9260	54·19	0·0	.	0·31	.....	.....	.....	318	Genuine.
Triple Flavouring Extract Lemon.	0·9503	41·16	+ 0·2	..	0·15	.....	.....	.....	323	"
Triple Concentrated Mixture Extract Lemon.	0·8727	76·68	+ 8·1	2·4	0·11	1·4740	.....	.....	328	Contains 2·4 p.c. lemon oil. Sold as a mixture.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF QUEBEC PROVINCE—								
1915.								
July 20	Essence Citron.	2779	Joseph Dubé, Cap St. Ignace.	3 bots.	30	Gagnon & Garent, Quebec.	....	. ...
" 21	"	2782	Jean Bte. Poirier, Montmagny.	3 "	30	Herron, Leblanc, Quebec.	.....	....
" 21	"	2785	Jos. Fournier, St. Thomas, Montmagny.	3 "	30	The Chem. Wks., Hamilton.	.....	....
" 27	Extract Lemon.	2793	Desiré Fradette, N. D. du Rosaire.	3 "	30	Golden Star Brand, Montreal.	.....	....
DISTRICT OF THREE RIVERS—								
July 15	Lemon Flavouring Extract.	69122	W. H. Lacasse, L'Assomption.	3 bots.	25	Henri Jonas & Cie, Montreal.	.. ..	. .....
" 15	"	69123	Arthur Lafontaine, L'Assomption.	3 "	25	....	Hudon, Orsali, Montreal.	.....
" 14	"	69137	L. Pauze, L'Assomption..	3 "	25	International Food Co., Toronto.	.....	....
" 19	"	69138	W. Perreault, Joliette ...	3 "	45	Henri Jonas Cie, Montreal.	....	....
" 20	"	69141	A. L. Caisse, Berthierville.	3 "	45	"	....	.....
" 20	"	69142	" " .	3 "	45	"	.... .	.... .
" 20	"	69143	" " ..	3 "	45	"	.....	..... .
" 21	"	69151	O. Paquette, Berthierville.	3 "	30	Litster, Toronto.	....	.....
" 21	"	69152	O. Daviault, Berthierville.	3 "	30	.....	Pierre Beaudoin, Berthierville.	.....
	"	69153	" " ..	3 "	60	Henri Jonas Cie, Montreal.	....	... .

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Concluded.

Description from Label.	Specific Gravity at 15·5 C.	Polarization in 2 dm. tube at 20° C.	Equivalent Lemon Oil.	Citral.	Alcohol by Volume.	Refractive Index of Oil.	—	No. of Sample.	Remarks and Opinion of the Chief Analyst.
			p. c.	p. c.	p. c.				
Gagnon & Garent. Seal Brand Lemon Extract Mixture.	0·9627	+ 0·1	.....	0·01	32·42	.....	.....	2779	Sold as a mixture
Herron, Leblanc. Red Cross Extract Lemon Mixture.	0·9807	0·0	....	0·02	15·58	.....	.....	2782	" "
Hamilton Chem. Works. Lemon Extract.	0·9639	0·0	.....	0·04	31·48	.....	.....	2785	Citral low. Adulterated.
Golden Star Brand Extract. Double Strength Lemon.	0·9741	0·0	.....	0·00	22·09	.....	.....	2793	Adulterated.

DR. V. P. LAVALLEE, INSPECTOR.

Lemon Mixture	0·8869	+ 6·5	2·0	0·12	71·22	...	.	69122	Sold as a mixture. Contains 2 p.c. lemon oil and 0·12 citral.
Lemon Extract	0·9730	0·0	....	0·06	23·10	..	..	69123	Adulterated.
Pure Fruit Extract Lemon.	0·8969	+ 6·4	1·8	0·20	67·53	1·4740	..	69137	Genuine, with 1·8 p.c. lemon oil.
Lemon Extract	0·8725	+ 8·0	2·6	0·08	76·70	1·4736	..	69138	Citral low. Adulterated. Contains 2·6 p.c. lemon oil.
Mixture	0·8748	+ 8·0	2·4	0·06	75·90	1·4735	..	69141	Sold as a mixture. Contains 2·4 p.c. lemon oil.
.....	0·9634	+ 0·5	In	cherry	extract	..	..	69142	Coloured by tartrazine.
. .	In	extract of	peppermint	..	..	..	..	69143	..
Artificial	0·9709	0·0	..	0·04	25·17	..	....	69181	Sold as artificial.
Lemon Mixture	0·9717	+ 0·6	0·18	None	24·38	.		69182	Sold as a mixture.
Lemon Extract	0·8739	+ 7·8	2·3	0·06	76·24	..	..	69183	Citral low. Adulterated. Although contains 2·3 p.c. lemon oil.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF EASTERN TOWNSHIPS—
1915.								
Aug. 11	Lemon Flavouring Extract.	51390	S. W. Fortier, Sherbrooke.	3 bots.	30	White Cross Mfg. Co., Toronto.	.....	Compound..
" 11	"	51391	A. Boisvert, Sherbrooke..	3 "	30	....	.....	Bee brand ..
" 11	"	51392	G. E. Robitaille, Sherbrooke.	3 "	30	Hamilton Chem. Wks.	.....	Labelled mixture compound.
" 12	"	51393	Farley & Burroughs, Coaticook.	3 "	30	.....	.....	Bee brand ..
" 12	"	51394	D. S. Bashand, Coaticook.	3 "	25	S. H. Ewing & Sons, Montreal.	.....	Mixture ....
" 17	"	51395	Mercure & Frere, Granby.	3 "	30	Tropical Extract Co., Toronto.	.....	Artificial....
" 17	"	51396	Beaudry & Beauchemin, Granby.	3 "	30	The Hamilton Chem. Wks.	.....	"
" 18	"	51397	W. Hamel, Magog ...	3 "	30	Integrity Mills, Toronto.	.....	Mixture ....
" 18	"	51398	B. E. Goyette, Magog ...	3 "	75	Litster Pure Food Co.	.....	....
" 18	"	51399	I. M. Bachelder & Co., Magog.	3 "	45	Davis, Lawrence Co., Montreal.	.....	Royal brand.
								DISTRICT OF MONTREAL—
Aug. 25	Lemon Flavouring Extract.	67436	J. A. Villeneuve, 195 Ottawa St., Montreal.	3 bots.	30	S. H. Ewing & Sons.	.....	.....
" 26	"	67437	A. Silverstone, 640 St. Catherine St. W., Montreal.	3 "	30	Henri Jonas & Co.	.....	....
" 26	"	67438	H. Russell, 847 St. Catherine St. W., Montreal.	3 "	75	McLaren's, Ltd.	.....	... .
" 26	"	67439	Murphy & Riordon, 871 St. Catherine St. W., Montreal.	3 "	30	Holly Packing Co.	.....	.....
" 26	"	67440	J. G. Coté, 887 St. Catherine St. W., Montreal.	3 "	75	.....	Mr. Sillcocks.	.....
" 26	"	67441	W. J. Brown, 888 St. Catherine St. W., Montreal.	3 "	75	The Allredie Pure Food Co.	....	.....
" 26	"	67442	Jas. Graham, 4451 St. Catherine St., Westmount.	3 "	30	Imperial Extract Co.	.....	Sold as mixture. Not pure.
" 30	"	67443	G. Greenberg, 1221 Green Ave., Westmount.	3 "	75	L. Silverman..	.....	Sold as compound.
Sept. 1	"	67444	Prince Arthur Liquor Grocery, 20 Prince Arthur St. E., Montreal.	3 "	75	.....	Unknown.	....
" 1	"	67445	S. Dever & Son, Prince Arthur St. and Colonial Ave., Montreal.	3 "	25	.....	"	.....

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Specific Gravity at 15·5° C.	Polarization in 2 dm. tube at 20° C.	Equivalent Lemon Oil.	Citral.	Alcohol by Volume.	Refractive Index at 20° C.	—		
J. J. COSTIGAN, ACTING INSPECTOR.									
			p. c.	p. c.	p. c.				
White Cross Manufacturing Co. Compound Lemon.	0·9682	0·0	.....	0·02	27·68	.....	.....	51390	Sold as compound.
.....	0·9708	0·0	.....	0·08	25·27	.....	.....	51391	" mixture.
Hamilton Chemical Wks. Tropical Compound Extract Lemon.	0·9669	0·0	.....	0·06	28·86	.....	.....	51392	" compound.
Mixture. "Bee Brand" Lemon Extract.	0·9706	0·0	.....	0·08	25·47	.....	.....	51393	" mixture.
S. H. Ewing & Son. Lemon Mixture Flavouring Extract.	0·9668	0·0	.....	0·06	28·95	.....	.....	51394	" "
Tropical Extract Co. "Eagle Brand" Artificial Flavouring Ess., coloured.	0·9638	0·0	.....	0·06	31·57	.....	.....	51395	" artificial.
Hamilton Chemical Wks. Prime Extract Lemon. Artificial.	0·9668	0·0	.....	0·08	28·95	.....	.....	51396	" "
Integrity Mills. Lemon Extract Mixture.	0·9694	0·0	.....	0·08	26·58	.....	.....	51397	" mixture.
Litster Pure Food Co. Lemon Extract.	0·9329	+ 0·1	.....	0·11	50·87	.....	.....	51398	Too low in citral.
Davis, Lawrence. Royal Extract Lemon.	0·9171	0·0	.....	0·20	58·32	.....	.....	51399	Genuine.
D. J. KEARNEY, INSPECTOR.									
S. H. Ewing & Son. Club Lemon Extract.	0·9741	− 0·2	.....	0·02	22·09	.....	.....	67436	Too low in citral, Adulterated.
Henri Jonas Co. Extract Lemon. Mixture.	0·8807	+ 6·9	2·2	0·12	73·65	1·4730	.....	67437	Sold as mixture.
McLaren's Ltd. Invincible True Lemon.	0·9396	+ 0·2	.....	0·16	47·35	.....	.....	67438	Genuine.
Holly Packing Co. Artificial Coloured Compound. Concentrated Extract Lemon.	0·9714	− 0·1	.....	0·06	24·68	.....	.....	67439	Sold as artificial.
Shurtiff's Imperial Quint Essence True Lemon.	0·9210	+ 1·1	.....	0·20	56·54	.....	.....	67440	Genuine.
Allredio P. E. Co "Allredio Brand" Lemon Extract.	0·9501	+ 0·1	.....	0·05	41·26	.....	.....	67441	Citral too low Adulterated.
Imperial Extract Co. Our 1890 Mixture Lemon.	0·9827	0·0	.....	0·06	13·71	.....	.....	67442	Sold as mixture.
Silverman's Compound Lemon.	0·9704	+ 0·2	.....	0·20	25·67	.....	.....	67443	Sold as compound, contains 0·20 p.c. citral.
McLaren's "Dew Drop" Extract Lemon, Mfg. H. C. & S. Co., Ltd.	0·9473	0·0	.....	0·05	42·67	.....	.....	67444	Citral too low Adulterated.
I. E. C. Our 1890 Soluble Extract Lemon.	0·9760	0·0	.....	0·04	20·24	.....	.....	67445	" "

BULLETIN No. 337—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF VALLEYFIELD—								
1915.								
July 15	Lemon Flavouring Extract.	58186	Victor Gregoir, St. Charles St., St. Johns.	3 bots.	30	Integrity Mills, Toronto.	.....	Labelled Artificial.
" 15	"	58187	" "	3 "	30	Henri Jonas Co., Montreal.	.....	Mixture stencilled on label.
" 15	"	58188	M. A. Comtois, St. Charles St., St. Johns.	3 "	30	"	.....	"
" 15	"	58189	Joseph Chartier, Market Place, St. Johns.	3 "	60	"	.....	Triple concentrated.
" 15	"	58190	J. E. Lariviere & Co., St. Jacques St., St. Johns.	3 "	30	Herron Leblanc, Ltd.	.....	Labelled Mixture.
" 20	"	58191	W. J. McPherson, Cecil St., Valleyfield.	3 "	60	Pure Gold Co., Ltd., Toronto.	.....	Labelled Govt. Standard.
" 20	"	58192	" "	3 "	60	F. F. Dalley Co., Ltd., Hamilton.	.....	.....
" 21	"	58193	J. A. Tremblay & Cie., Victoria St., St. Lambert.	3 "	30	.....	.....	Labelled Mixture.
" 21	"	58194	E. Beauchamp, Front St., St. Lambert.	3 "	30	Holly Packing Co., Montreal.	.....	Labelled Compound.
" 22	"	58195	D. Seward, Main St., Hawkesbury.	3 "	30	Birks Corner Co., Montreal.	.....	Labelled Artificially Coloured.
DISTRICT OF OTTAWA—								
July 12	Lemon Flavouring Extract.	63659	E. Carpenter, Mille Roches.	3 bots.	30	Vendor	.....	Labelled Lemon Quality Extracts.
" 13	"	63660	Wm. Jenkins, Carleton Place.	3 "	75	Shirriff's, Toronto.	Mfrs.....	Labelled Imperial Quintessence True Lemon.
" 13	"	63661	Thos. Stevens, Carleton Place.	3 "	30	N. C. Polson & Co., Kingston.	"	Labelled Perfection Brand Pure.
" 13	"	63662	" "	3 "	75	Pure Gold M'f'g. Co., Toronto.	"	Pure Gold.

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label	Results of Analysis							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Specific gravity at 15·5° C.	Polarization in 2 dm. tube at 20° C.	Citral.	Separated Lemon Oil.	Refractive Index.	Alcohol by volume.	—		
J. J. COSTIGAN, ACTING INSPECTOR.									
			p. c.	p. c.		p. c.			
Intregrity Mills. Artificial Coloured Lemon Extract.	0·9705	0·0	0·05	.....	.....	25·57	.. ..	58186	Sold as artificial.
H. Jonas & Co., Triple Concentrated Extract Lemon Mixture.	0·8809	+ 7·8	0 08	2·4	1·4739	73·57	. ... .	58187	Sold as mixture.
H. Jonas & Co., Ex. Lemon Mixture.	0·8775	+ 8·0	0 07	2·4	1·4735	74 89	. .....	58188	" "
Henri Jonas Co., Jonas Triple Concentrated Lemon Extract.	0·8746	+ 8·0	0·10	2·7	1 4739	75 98	....	58189	Citral too low
Herron Leblanc, Ltd., Lemon Mixture. Red Cross.	0·9816	0·0	0 04	....	.....	14 74	... .	58190	Sold as mixture.
Pure Gold Co., Standard Ext. Lemon.	0·8937	0·0	0·18	.. ...	... .	68·44	.....	58191	Genuine.
F. F. Dalley Co., Lemon Pure Fruit Extract.	0 8459	+11 4	0 16	3·6	1·4739	86 32	....	58192	"
Lemon Ext. Mixture ...	0·9775	0 0	0 01	. ..	.	18·78	. . .	58193	Sold as mixture.
Holby Pack Co., Concentrated Ext. Lemon Compound.	0·9716	0 0	0 08	.....	. ..	24 48	....	58194	" compound.
Mixture.	0 9717	0 0	0·04	... .	.....	24 38	....	58195	" mixture.
J. A. RICKEY, INSPECTOR.									
Carpenter. Lemon Quality Extract.	0 9801	0 0	0 4	.....	.....	16 15	....	63059	Citral low. Adulterated.
Shirriffs Imp. Quintessence True Lemon.	0 9490	0 0	0 10		.	41 84	.....	63060	Citral below standard.
N. C. Polson & Co., Perfection Brand Pure Conc. Flav. Extract Lemon.	0 9048	+ 10 2	0 02		.	18 58	.....	63061	Citral low. Adulterated.
Pure Gold Co. Pure Gold Lemon Ext.	0 9470	+ 0 2	0 17	.....	.....	48 75	....	63062	Genuine.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF OTTAWA—								
1915.								
July 16	Lemon Flavouring Extract.	63663	G. A. Ellis, Renfrew	3 bots.	30	Integrity Mills, Toronto.	Mfrs.	WorldBrand
" 16	"	63664	P. J. Campbell, Renfrew.	3 "	75	Gorman, Eckert & Co., Ltd., London, Ont.	"	Double Strength Pure.
" 16	"	63665	H. Brydge, Renfrew	3 "	30	The J. M. Lowes Co., Ltd., Toronto.	"	Monarch Concentrated True Fruit Flavour. Extract.
" 24	"	63666	T. F. Dextras, Cornwall.	3 "	30	Gorman, Eckert & Co., Ltd., London, Ont.	.....	Oriental.. ..
" 24	"	63667	D. J. Gillies, Cornwall...	3 "	75	The F. F. Dalley Co., Ltd., Hamilton.	.....	Guaranteed Pure.
" 26	"	63668	Wm. F. Nesbitt, Britannia Bay.	3 "	30	L. Crossman, Ottawa.	.....	Our 1910 Pure Concentrated Extract of Lemon.
Aug. 7	"	63671	P. A. Gagne, South Indian.	3 "	30	Northop & Lyman Co., Ltd., Toronto.	.....	....
" 7	"	63673	Stephen Pilon, Rockland.	3 "	75	International Food Co., Toronto.	....	Reliance ...
DISTRICT OF KINGSTON—								
July 29	Lemon Flavouring Extract.	70231	N. C. Polson & Co., Kingston.	3 bots.	30	Vendors	.....	.....
Aug. 2	"	70232	H. C. Hampton, Belleville.	3 "	30	... .	R. Fenn & Co.	This sample was in stock when vendor bought the business.

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Specific gravity at 15·5° C.	Polarization in 2 dm. tube at 20° C.	Citral.	Separated Lemon Oil.	Refractive Index.	Alcohol by volume.	—		
Concluded									
			p. c.	p. c.		p. c.			
Lemon Extract	0·9702	0·0	0·05	.....	.....	25·86	.....	63663	Citral too low. Adulterated.
Gorman, Eckert Co. Lemon Ext.	0·9352	0·0	0·16	.....	.....	49 71	.....	63664	Genuine.
J. M. Lowes Co. Lemon Concentrated. "Monarch."	0·9732	0·0	0·06	.....	... .	22 92	.....	63665	Citral too low. Adulterated.
Gorman Eckert Co. Oriental Lemon Flav. Ext.	0·9599	0·0	0·05	.....	.....	34·61	.....	63666	"
Dalley's Pure Fruit Extract Lemon.	0·8506	+10·8	0·15	3 6	1·4720	84 74	.....	63667	Genuine.
L. Crossman. Concentrated Ext. Lemon.	0·9753	0 0	0·04	...	.. .	20·89	.. ..	63668	Citral too low. Adulterated.
Northrop & Lyman. Red Seal Brand Lemon Extract.	0 9387	0 0	0 18	..	.. .	47·83	. .....	63671	Genuine.
Lemon Extract . .	0·8952	+ 5·6	0 16	1 5	1·4739	67 85	. . . . .	63673	—

JAMES HOGAN, INSPECTOR.

	Specific Gravity at 15·5° C.	Polarization in 2 dm tube at 20° C.	Alcohol by Volume.	Citral.	Equivalent Lemon Oil.	Refractive Index of Oil.			
			p. c.	p. c.	p. c.				
N. C. Polson Co. Perfection Brand. Artificial Lemon.	0 9731	+34 4	.....	0 25	0·4	1 4740		70230	Sold as artificial
R. Fenn & Son. Special Flavouring Extract Lemon.	0 9800	0·0	16 24	0·06	...	...		70232	Citral too low. Adulterated

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF KINGSTON—
1915.								
Aug. 2	Lemon Flavouring Extract.	70233	S. R. Artis, Belleville....	3 bots.	30	Vendor.		
" 2	"	70234	R. Elvins, Belleville....	3 "	30			
" 3	"	70235	S. P. Harvey & Sons, Cobourg.	3 "	75	McLaren's, Hamilton.		
" 3	"	70236	W. Burnet, Cobourg.....	3 "	75	"		
" 3	"	70237	Thompson, Macdonald, Cobourg.	3 "	25	Gorman, Eckert Co., London.		
" 3	"	70238	Sam Sleeman, Port Hope.	3 "	30	White Swan, Toronto.		
" 3	"	70239	F. Rosevear, Port Hope..	3 "	30	Vendor.		
" 3	"	70240	F. H. Brown, Port Hope.	3 "	30	Tropical Extract, Toronto.		
								DISTRICT OF TORONTO—
Aug. 8	Extract of Lemon.	70084	David Bell, 1364 Bathurst St., Toronto.	3 bots.	75	Pure Gold Mfg. Co., Toronto.		
" 10	"	70085	W. Massen, 1346 St. Clair Ave., Toronto.	3 "	15		Unknown.	Star brand.
" 10	"	70086	F. Kelsey, 1738 St. Clair Ave., Toronto.	3 "	15		"	
" 11	"	70087	T. R. Franklin, 165 Danforth Ave., Toronto.	3 "	75	Imperial Extract Co., Toronto.		Shirriff's Imperial Quintessence true lemon.
" 12	"	70088	The T. Eaton Co., Ltd., Queen and Yonge Sts., Toronto.	3 "	45	G. F. Sutton Sons, London, Eng.		Labelled essence of lemon.
" 13	"	70089	Conway & Co., 1995 Dundas St., Toronto.	3 "	30	Eby, Blain, Ltd., Toronto.		Anchor brand.
" 16	"	70090	Mead's Grocery, 806 College St., Toronto.	3 "	75	McLaren's, Hamilton.		McLaren Invincible.
" 17	"	70091	W. J. Snell, 2165 Queen St. E., Toronto.	3 "	75	Pure Gold Mfg. Co., Ltd., Toronto.		
" 17	"	70092	W. Black, 1960 Queen St. E., Toronto.	3 "	60	"		
" 18	"	70093	W. Forster, 177 Roncesville Ave., Toronto.	2 "	20	Integrity Mills, Toronto.		Integrity World brand. Double strength.

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Specific Gravity at 15·5° C.	Polarization in 2 dm. Tube at 20° C.	Alcohol by Volume.	Citral.	Separated Oil.	Refractive Index.	—		
Concluded.									
			p. c.	p. c.	p. c.				
S. R. Artis. Maple Leaf Artificial Lemon.	0·9774	0·0	18·88	0·10	.....	.....	.....	70233	Sold as artificial.
J. M. Lowes Co. Monarch Compound Flavouring Ext. Lemon.	0·9677	0·0	28·13	0·08	.....	.....	.....	70234	" compound
True Lemon Extract....	0·9453	0·0	44·00	0·10	.....	.....	.....	70235	Citral low.
McLaren's True Lemon..	0·9493	0·0	41·69	0·10	.....	.....	.....	70236	"
Forest City Lemon Extract Mixture.	0·9648	0·0	30·73	0·20	.....	.....	.....	70237	Sold as mixture. Contains 0·20 p. c. citral.
Lemon Mixture	0·9775	0·0	18·78	0·10	.....	.....	.....	70238	Sold as mixture.
F. Rosevear. Maple Leaf Artificial Ext. Lemon	0·9758	0·1	18·48	0·10	.....	.....	.....	70239	" artificial.
Tropical Extract Co. Oriental Artificial Coloured Lemon Extract Mixture.	0·9653	0·0	30·31	0·06	.....	.....	.....	70240	" "
H. J. DAGER, INSPECTOR.									
Pure Gold Govt. Standard Lemon Extract.	0·8937	+ 0·4	68·44	0·15	.....	.....	.....	70081	Genuine.
Star Brand Lemon Flavouring Extract.	0·9819	0·6	14·46	0·06	.....	.....	.....	70085	Citral too low. Adulterated
Strongest Flavouring Extract Lemon.	0·9783	+ 2·3	17·92	0·05	.....	.....	.....	70086	" " "
Shirriff's Imperial Quint Essence True Lemon.	0·9214	+ 0·9	60·34	0·18	.....	.....	.....	70087	Genuine.
G. F. Sutton & Son Co. Essence of Lemon.	0·9373	+ 0·5	48·59	0·11	.....	.....	.....	70088	Citral too low.
Eby, Blain, Ltd. Finest Quality "Anchor Brand" Lemon Extract.	0·9090	+ 2·1	61·84	0·25	.....	.....	.....	70089	Genuine
McLaren's Invincible True Lemon	0·9466	0·0	43·19	0·11	.....	.....	.....	70090	Citral too low and artificial.
Pure Gold Mfg. Co. Pure Gold Extract Lemon.	0·9402	+ 0·2	47·02	0·19	.....	.....	.....	70091	Genuine
Pure Gold Mfg. Co. Pure Gold Extract Lemon.	0·9411	+ 0·2	46·78	0·16	.....	.....	.....	70092	"
Double Strength Lemon Extract.	0·9690	0·0	26·95	0·09	.....	.....	.....	70093	Citral too low. Adulterated

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
			DISTRICT OF HAMILTON—					
1915.								
July 21	Extract of Lemon.	70021	A. R. Phipps, 78 Queenston St., St. Catharines.	3 bots.	30	Vendor . . .	.....	Labelled Our Leader, Mfg. expressly for vendor.
" 22	"	70023	E. Gander, King and Queen Sts., St. Catharines.	3 " ..	75	F. F. Dalley, Co., Hamilton.	.....	.....
" 22	"	70024	L. McMann, Thorold...	3 " ..	30	Balfour Smye & Co., Hamilton.	.....	Tartan Brand.
" 23	"	70025	John Muir, 29 Queen St., Niagara Falls.	3 " ..	75	Imperial Extract Co., Ltd., Toronto.	....	Shirriffs Imperial Quintessence True.
" 23	"	70026	O. E. Dores, 41 Queen St., Niagara Falls.	3 " ..	15	Gorman Eckert Co., Ltd., London.	.. ..	Pure Concentrated.
" 23	"	70027	Extence & Norton, Bolton	3 " ..	30	Vendors.	.....	.....
Aug. 3	"	70028	Deeves & Co., Brampton.	3 " ..	30	"	.....	Labelled Maple Leaf.
" 4	"	70029	McKay Bros., Georgetown.	3 " ..	60	Tropical Extract Co., Toronto.	.....	Labelled Imperial. Prepared by Tropical Extract Co., Toronto.
" 5	"	70030	The F. F. Dalley Co., Ltd., 71 Hughson St., Hamilton.	3 " ..	45	Vendors.. .	. ..	.....
" 5	"	70034	Imperial Spice Co., Ltd., 33 McNabb St., N., Hamilton.	3 " ..	25	"	....	Red Feather
" 5	"	70035	McLaren's, Ltd., Park and Merrick Sts., Hamilton.	3 " ..	30	" .. .	....	Invincible...
" 5	"	70062	Young Windfield Ltd., 87 Cannon St., W., Hamilton.	3 " ..	20	" .. .	.....	Young's Improved.

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Specific gravity at 15·5° C.	Polarization in 2 dm. tube at 20° C.	Alcohol by volume.	Citral.	Separated Oil.	Refractive Index.	—		
			p.c.	p.c.	p.c.				
A. R. Phipps, Our Leader Pure Extract Lemon.	0·9731	+ 0·1	23 01	0 06	....	....	....	70021	Citral low. Adulterated.
Dalley's Pure Fruit Extracts Lemon.	0·8527	+11·7	84 01	0·15	3·5	1·4740	....	70023	Genuine.
Balfour Smye Co. Pure Lemon Flav. Extract.	0·9649	0 0	30·65	0·14	....	....	....	70024	Citral below standard.
Shirriffs Imperial Quintessence True Lemon.	0·9358	− 0·2	49·40	0·16	....	....	....	70025	Genuine.
Pure Concentrated Extract Lemon.	0·9688	0 0	27 13	0 06	....	....	....	70026	Citral low. Adulterated.
Extence & Norton. Lemon Flav. Extract.	0·9727	− 0·2	23 38	0 11	....	.....	....	70027	Citral below standard.
Deeves & Co Maple Leaf Flav Ext Lemon.	0·9792	0 0	16 98	0 02	....	....	....	70028	Citral low. Adulterated.
Tropical Ext. Co. Imperial Flav Ext Lemon.	0·9169	− 0·1	43 01	0 08	....	....	.....	70029	
Dalley's Pure Fruit Extract Lemon.	0·8482	+11·4	85 53	0 15	4 0	1·4726	....	70030	Genuine.
Imp. Spice Co., Ltd Red Feather Quality Lemon Ext.	0·9395	0 0	47 40	0 25	....	....	....	70031	
Guaranteed a higher grade than Govt Standard McLarens, Ltd. Invincible True Lemon. This is the highest grade of extract made.	0·9114	+ 0·2	16 37	0 16	....	....	....	70032	
Young Winfield Improved Extract Lemon	0·9285	− 0·5	33 01	0 11	....	....	....	70033	Citral low.

H. J. DAGER, ACTING INSPECTOR.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
			DISTRICT OF WINDSOR—					
1915.								
Aug. 2	Lemon Flavouring Extract.	54632	J. A. Kelly, Lambeth....	3 bots.	30	I. X. L. Spice Co., London	.. ..	Honey Drip
" 2	"	54634	G. T. Carley, Lambeth ..	3 " ..	30	" ..	.....	Lemon Artificial Sweetheart Brand.
" 2	"	54635	Earle & Son, Lambeth. ..	3 " ..	30	E. Adams Co., London.	.....	Fan Brand, Artificial.
" 4	"	54636	Willis & Co., London....	3 " ..	30	Vendors.....	.....	Willis Own Fruit Flav. Extract Mixture.
" 4	"	54637	Blinn Bros., London.....	3 " .	30	M. Masurett & Co., London.	....	Eagle.....
" 4	"	54638	Dan Carter, London.....	3 " ..	75	Shirriffs, Toronto.	.....	Shirriff's Imperial Quintessence.
" 4	"	54640	R. W. Janes, London ...	3 " ..	30	White Cross Mfg., Co.. Toronto.	.. ..	White Cross Pure.
" 13	"	54667	Butler Bros., St. Thomas	3 " ..	25	Gorman Eckert Co., Toronto.	.....	Artifical....
" 13	"	54671	W. E. Ross, St. Thomas.	3 " ..	45	Imperial Extract Co., Toronto.	... .	Eclipse.....
			DISTRICT OF MANITOBA—					
Aug. 18	Lemon Flavouring Extract.	61345	Sutherland & Robertson, 136 Tenth St., Brandon.	3 bots.	75	McLaren's Ltd., Hamilton.	....	.....
" 18	"	61354	The A. I. Grocery, 416 Tenth St., Brandon.	3 "	75	Codville Co., Winnipeg.	... .	.....
" 18	"	61355	W. J. Yonnges, 1013 Rosser Ave., Brandon.	3 "	75	Imperial Ext. Co., Toronto.	.....	.....
" 18	"	61358	Smith & Burton, Brandon.	3 "	75	Vendors.....	.....	....

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Specific Gravity at 15·5° C.	Polarization in 2 dm. tube at 20° C.	Alcohol by Volume.	Citral.	Separated Oil.	Refractive Index.	—		
JOHN TALBOT, INSPECTOR.									
			p. c.	p. c.	p. c.				
.....	Is a Syrup.		....	.....	....	....	.....	54632	Not lemon Extract. Collected by mistake.
I. X. L. Spice & Coffee Co. Sweetheart Brand. Lemon Ext. Artificial.	0·9776	0·0	18·68	0·06	.....	....	.....	54634	Sold as artificial.
Ed. Adam & Co. Artificial Ext. Lemon. Coloured.	0·9869	+ 0·1	9·95	0·11	.....	....	.....	54635	" "
Willis & Co. Lemon Mixture.	0·9644	0·0	31 07	0 06	.....	....	.....	54636	" mixture.
M. Masuret & Co. Lemon Extract.	0 9761	+ 0·1	20 15	0·03	....	....	.....	54637	Citral low. Adulterated.
Shirriff's Imp. Quintessence True Lemon.	0·9217	+ 0 9	56 21	0 21	....	....	.....	54638	Genuine.
White Cross Mfg , Co. Lemon Ext.	0 9732	0·0	22 92	0 04	....	....	.....	54640	Citral low. Adulterated.
German Eckert & Co Artificial Lemon Flav Ext.	0 9740	— 0 1	22 18	0 16	....	....	.....	54667	Sold as artificial Contains 0 16 citral
Imperial Ext. Co. Lemon Pure Eclipse.	0 9424	0 0	45 77	0 08	....	....	.....	54671	Citral low. Adulterated.

J. B. COSGROVE, TEMPORARY INSPECTOR.

	Specific Gravity at 15·6° C.	Rotation 2 dm. tube at 20° C.	Lemon Oil Calculated.	Sp. Gr. of Distillate to Vol. at 15·6° C.	Alcohol by Volume.	Citral.			
			p. c.		p. c.	p. c.			
McLaren's Invincible True Lemon.	0 9422	1 0	0 31	0 9466	47 24	0 20		61284	Genuine.
Gold Stand. Mfg. Co. Lemon artificially coloured.	0 8501	20 0	0 2	0 8881	82 16	0 22	Glycerine present.	61304	
Shirriff's Imperial Quintessence True Lemon.	0 9379	1 0	0 31	0 9351	49 76	0 18		61356	
Smith & Burton. Extract Lemon.	0 9682	1 0	0 31	0 9664	29 31	0 10		61426	Citral low.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
								DISTRICT OF MANITOBA—
1915.								
Aug. 18	Lemon Flavouring Extract.	61359	McDonald & Foreman, 829 Princess Ave., Brandon.	3 bots.	75	Gold Standard Mfg, Co., Winnipeg.	....	.....
" 20	"	61360	W. & D. Mayrs, 1056 Main St., Winnipeg.	3 "	75	Dyson Co., Winnipeg.	.....	....
" 20	"	61361	J. R. Royle, 1116 Main St., Winnipeg.	3 "	75	McLaren's, Ltd., Hamilton.	.....	....
" 20	"	61362	St. John's Grocery, 1238 Main St., Winnipeg.	3 "	75	Codville Co., Winnipeg.	.....	....
" 20	"	61363	Wilton & Conley, 1352 Main St., Winnipeg.	3 "	75	Blue Ribbon Co., Winnipeg.	.....	....
" 20	"	61364	W. H. Stone Co., 14103 Main St., Winnipeg.	" "	75	"	... .	....
								DISTRICT OF SASKATCHEWAN—
July 20	Lemon Flavouring Extract.	66404	W. McLeod, Melville....	3 bots.	60	Pure Gold Mfg. Co., Toronto.	.....	Pure Gold brand.
" 20	"	66405	A. W. Gunn & Co., Melville.	3 "	60	Campbell Bros. & Wilson, Winnipeg.	.. . ...	Royal Shield brand.
" 20	"	66406	J. D. Miller & Sons, Melville.	3 "	45	Gorman, Eckert & Co., London.	.....	Jewel brand.
" 20	"	66407	Love & Waldman, Melville.	3 "	40	Unknown . .	Campbell Bros. & Wilson, Winnipeg.	.....
" 20	"	69408	M. Bay Company, Melville.	3 "	45	Gt. West Spice Mills, Winnipeg.	"	Baker's .....
" 21	"	66409	Hudson's Bay Co., Yorkton.	3 "	60	Vendors.....	....	... .
" 21	"	66413	Levi Beck, Yorkton... ..	3 "	75	Tropical Extract Co., Toronto.	....	Eagle brand.
" 22	"	66415	J. F. Cairns, Saskatoon..	3 "	75	Imperial Spice Co., Hamilton.	Mfr	Red Feather brand.
" 23	"	66422	Nicholls & Laidlay, Saskatoon.	3 "	45	White Star Mfg. Co., Winnipeg.	... .	White Star brand.
" 23	"	66424	A. McDonald Co., Saskatoon.	3 "	50	Imperial Ex Co., Toronto.	.....	Shirriff's....

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Specific Gravity at 15·6° C.	Rotation 2 dm. Tube at 20° C.	Lemon Oil Calculated.	Sp. Gr. of Distillate to Vol. at 15·6° C.	Alcohol by Volume.	Citral.	—		
Concluded.									
			p. c.		p. c.	p. c.			
Gold Standard Mfg. Co. Gold Standard Lemon.	0·8510	20·0	6·25	0·8581	82 16	0·22	Glycerine present.	61359	Genuine.
Dyson Co. Red Cross Lemon.	0·8544	16·0	5 00	0·8679	78·47	0 19	....	61360	"
McLaren's Invincible True Lemon Extract.	0·9474	2 0	0·62	0·9453	44 0	0 10	.....	61361	Citral low.
Gold Standard Mfg. Co. Gold Standard Lemon.	0·8522	20 0	6·25	0·8581	82 16	0 22	Glycerine present.	61362	Genuine.
Blue Ribbon Co. True Lemon Extract.	0·9330	1 0	0·31	0 9334	50 62	0 28	.. ..	61365	"
Blue Ribbon Co. True Lemon Extract.	0·9367	1 0	0 31	0 9374	48 54	0 23	.....	61364	"
L. H. HALL, TEMPORARY INSPECTOR.									
Pure Gold Mfg. Co. Govt. Standard Pure Gold Flavouring Extract Lemon.	0 8906	1 2	0 38	0·8916	69 26	0 20	....	66404	Genuine.
Campbell Bros. & Wilson. Royal Shield Brand Flavouring Extract Lemon.	0 9114	38 0	2 50	0·8922	69 03	0 19	Cane sugar 7 78 p.c.	66405	"
Gorman, Eckert Co., "Jewel" Lemon Extract. Artificial.	0 9750	3 0	0 94	0 9729	23 19	0 15	.	66406	Sold as artificial. Contains 0 12 p.c citral
The Best Lemon Flavouring Extract	1 0149	46 0	0 31	0 9672	28 59	0 26	Cane sugar 12 80 p.c	66407	Genuine.
The Great West Spice Mill. Baker's Extract Lemon. Artificial.	0·9828	2 0	0 62	0 9805	15 77	0 10		66408	Sold as artificial. Contains 0 10 p.c citral.
Hudson's Bay Co. Pure Flavouring Extract Lemon.	0·9359	1 1	0 41	0 9367	48 91	0 20		66409	Genuine.
Tropical Extract Co. Eagle Brand Lemon Mixture.	0 9634	1 0	0 31	0 9663	34 39	0 16	.	66413	Sold as a mixture. Contains 0 12 p.c. citral.
Imperial Spice Co. Red Feather Quality Flavouring Ext Lemon	0 9391	1 0	0 31	0 9374	48 54	0 22		66414	Genuine.
White Star Mfg. Co. White Star Flavouring Extract Lemon	0 8915	5 0	1 56	0 8866	71 28	0 27		66422	"
Shirriff's Imperial Quintessence True Lemon	0 9359	2 0	0 62	0 9345	50 16	0 20		66424	"

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Adrdess of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
DISTRICT OF ALBERTA—								
1915.								
Aug. 11	Lemon Flavouring Extract.	52236	J. H. Morris & Co., Edmonton.	3 bots.	75	Pure Gold Mfg Co., Toronto	....	Pure Go ..
" 11	"	52237	Hallier & Aldridge, Edmonton.	3 "	60	McLaren's....	.....	Invisible....
" 11	"	52238	" " ...	3 "	1.00	Jas. Turner & Co.	.....	.....
" 11	"	52239	Johnston-Walker, Ltd., Edmonton.	3 "	60	Revillon Wholesale Ltd., Ed'n.	.....	Molliver Brand.
" 12	"	52240	Banner Grocery, Wetaskiwin.	3 "	75	Alberta Empress Co., Ltd. Calgary	.....	Alberta's Best.
" 12	"	52241	Lake & Co., Wetaskiwin..	3 "	75	Pure Gold Mfg Co., Toronto	.....	.....
" 13	"	52242	R. G. Gilmour, Lacombe.	3 "	75	Campbell Bros & Wilson, Winnipeg.	.....	Royal Shield
" 16	"	52243	The John Irwin Co., Calgary.	3 "	75	Georgeson & Co., Ltd., Calgary.	.....	Tuxedo Brand
" 19	"	52244	Pryce-Jones (Canada)Ltd. Calgary.	3 "	1.05	Seeley's, Windsor. Ont.	... .	.....
" 19	"	52245	" " ..	3 "	75	Imperial Extract Co., Toronto.	. . ....	Shiriff's Supreme Quality.
DISTRICT OF ROCKY MOUNTAINS—								
July 20	Lemon Extract.	61844	Trail Grocery Co., Trail..	3 bots.	75	F. F. Dalley Co., Hamilton.	.....	... .
" 20	Lemon Flavouring Essence.	61845	" " ...	3 "	1.35	W. A. Jameson Coffee Co., Victoria.	....	.....
" 20	Lemon Extract.	61849	T. Lauriente & Son, Trail	3 "	75	W. H. Malkin Co., Vancouver.	.....	....
" 20	"	61855	Hunter Bros., Rossland ..	3 "	60	Empress Mfg. Co., Vancouver.	.....	....
" 20	"	61856	" " ...	3 "	1.20	Kelley Douglas, Vancouver.	.. ....	Nabob.....
" 20	Lemon Flavouring Extract.	61857	Agnew & Co., Rossland...	3 "	60	"	.. ..	Columbia Mixture

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.							No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Specific gravity at 20° C.	Rotation in 2 dm. tube at 20° C.	Lemon Oil.	Alcohol by volume.	Citral.	Refractive Index of oil at 20° C.	—		
A. W. R. MARKLEY, INSPECTOR.									
			p. c.	p. c.	p. c.				
Pure Gold Mfg. Co. Pure Gold Flavouring Extract Lemon.	0·8906	− 0·8	0·20	64·75	0·16	...	.....	52236	Genuine
McLaren's Invincible "True Lemon".	0·9436	0·0	trace..	42·96	0·14	..	.....	52237	Citral below standard.
Jas. Turner & Co. Triangel Lemon.	0·9348	0·0	"	48·32	0·18	.. ..	.....	52238	Genuine.
Revillon Ltd. Lemon Molliver Brand.	0·9368	+ 0·8	0·10	42·50	0·15	.	..	52239	"
Alberta Empress Co. Flavouring Extract Lemon.	0·9524	0·0	trace..	37·60	0·12	.....	..	52240	Low in citral.
Pure Gold Mfg. Co. Pure and Lemon Flavouring Extract.	0·8920	0·0	..	67·80	0·14	.....	.....	52241	Citral below standard.
Campbell Bros. & Wilson. Royal Shield Brand. Lemon Flav. Extract.	0·9053	+ 36·6	2·90	67·00	0·12	1·4740	..	52242	Low in citral
Georgeson Co. Limited Tuxedo Lemon Flavouring Extract.	0·8267	+ 14·8	3·80	83·25	0·21	1·4742	.	52243	Genuine.
Seeley's Extra Concentrated Lemon.	0·9000	+ 14·7	1·50	62·50	0·11	1·4743	.. ... .	52244	Citral low.
Shurriff's Supreme Quality Lemon. Imperial Extract Co.	0·9349	+ 0·6	0·20	45·65	0·18	..	..	52245	Genuine.
THOS. PARKER, INSPECTOR									
F. F. Dalley & Co. Pure Fruit Lemon Extract.	0·8457	+ 10·3	3·70	78·50	0·14	1·4740	..	61841	Citral below standard.
Jameson's Flavouring Essence Lemon	0·9234	0·0	trace .	54·52	0·36		..	61842	Genuine
Malkins best finest quality. Flavouring Extract.	0·8652	+ 12·0	3·70	72·00	0·23	1·4742	..	61843	"
Empress Mfg. press Brand Lemon Extract.	0·9464	0·0	trace .	42·52	0·12	..	.. ..	61845	Citral low.
Naboh Brand Flavouring Extract Lemon	0·8810	+ 4·8	1·70	72·75	0·15	1·4742	..	61846	Genuine.
Columbia Powder Mixture Lemon Extract.	0·9682	0·0	0·00	25·68	0·05		..	61847	Solid as mixture

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quanity.	Cents.	Manufacturer.	Furnisher.	
			DISTRICT OF ROCKY MOUNTAINS—					
1915.								
July 20	Artificial Lemon Extract.	61858	Agnew & Co. Rossland...	3 bots.	60	Hamilton Chem. Works Hamilton.	.....	Oak Leaf....
" 20	Lemon Extract.	61859	" " ...	3 "	60	Wilson Bros.. Victoria.	.....	Diamond W.
Aug. 6	Lemon Flavouring Extract.	61862	The O'Kanagan Grocery, Vernon.	3 "	30	Tropical Extract Co., Toronto.	.....	Eagle. . ...
" 6	Lemon Extract.	61865	W. R. Megaro, Vernon...	3 "	1.30	Climax Extract Co., Vancouver.	. . ....	. ...
			DISTRICT OF VANCOUVER—					
July 15	Lemon Flavouring Extract.	55310	D. McGregor, Bute and Pender St., Vancouver.	3 bots.	30	Sterling Extract Co., Vancouver.	.....	Sold as imitation.
" 15	"	55311	W. Couling, 1374 Pender St., Vancouver.	3 "	45	W. Braid & Co., Vancouver.	.....	Big Four Brand. Sold as imitation.
" 15	"	55312	Almas Grocery, Robson and Richards Sts., Vancouver.	3 "	30	Pure Fruit Extract Co., Vancouver.	.....	Sold as a mixture.
" 15	"	55313	The Home Grocery Co., Robson and Homer St, Vancouver.	3 "	30	Empress M'fg. Co., Vancouver.	.....	Climax Brand. Sold as a mixture.
" 15	"	55314	" "	3 "	60	"	....	Empress Brand.
" 15	"	55315	L. Havird, 300 Dunsmuir St., Vancouver	3 "	30	....	Nelson, Shakespeare, Watkins, Ltd., Vancouver.	Quakers Brand. Sold as a compound
" 16	"	55316	Slater Bros., 126 Hastings St., W., Vancouver.	3 "	30	Kelly, Douglas & Co., Ltd., Vancouver.	....	Columbia Brand. Sold as a mixture.
" 16	"	55317	Woodward Dept. Stores, Vancouver.	3 "	75	"	....	Nabob Brand.
" 16	"	55318	A. & C. Grocery Co., 520 Granville St., Vancouver.	3 "	75	W. Braid & Co., Vancouver.	.....	Braid's Best.
" 16	"	55319	Clover Leaf Butter Store, Nelson & Granville Sts., Vancouver.	3 "	30	Royal Mfg. Co., Vancouver.	.....	Royal Brand. Sold as mixture.

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.								No. of Sample.	Remarks and opinion of the Chief Analyst.
	Specific gravity at 20° C.	Rotation in 2 dm. tube at 20° C.	Lemon Oil.	Alcohol by volume.	Citral.	Refractive Index of oil at 20° C.	—			
Concluded.										
			p. c.	p. c.	p. c.					
Ham. Chemical Works. Oak Leaf Artifical Lemon Extract.	0·9724	0·0	6·00	22·20	0·17	.....	.....		61858	Sold as artificial. Contains 0·17 p. c. citral.
Wilson Bros. Lemon Diamond Fla. Extract Compound, coloured, extra concentrated.	0·9618	0·0	0·00	34·76	0·10	.....	.....		61859	Sold as compound.
Trop. Extract Co. Eagle Quintessence Lemon Extract.	0·9638	0·0	0·00	29·64	0·09	.....	.....		61862	Citral low. Adulterated.
No Label.....	0·9751	0·0	0·00	19·88	0·02	.....	.....		61865	"
E. J. MORGAN, INSPECTOR.										
Sterling Ext. Co. Lemon. Imitation.	0·9666	0·0	0·00	28·12	0·12	...	.....		55310	Sold as imitation.
Wm. Braid & Co. Imitation Lemon.	0·9604	0·0	0·00	32·92	0·13	.....	.....		55311	"
Pure Fruit Extract Co. Lemon Mixture.	0·9824	0·0	0·00	14·40	0·03	.....	.....		55312	" mixture.
Empress Mfg. Co. Flav. Mixture. Lemon Climax.	0·9683	0·0	0·00	26·32	0·10	.....	.....		55313	"
Emp. Mfg. Co. Empress Brand. Lemon Extracts.	0·9599	0·0	0·00	32·00	0·10	.....	.....		55314	Citral low.
Quakeress Brand. Compound Lemon.	0·9585	0·0	0·00	33·08	0·10	.....	.....		55315	Sold as compound.
Columbia Brand. Best Flav. Ext. Mixture.	0·9725	0·0	0·00	22·32	0·03	.....	.....		55316	" mixture.
Lemon Flav. Ext. Na boh Brand.	0·9282	+ 0·6	0·10	48·80	0·18	.....	.....		55317	Genuine.
Wm. Braid & Co. Best Flav. Ext. Lemon.	0·9053	+ 1·6	0·50	57·85	0·16	1·4763	.....		55318	"
Royal Mfg. Co. Royal Flav. Mixture. Lemon.	0·9769	0·0	0·00	19·60	0·03	.....	.....		55319	Sold as mixture.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.		Inspector's Report. (Is not an expression of opinion.)
				Quantity.	Cents.	Manufacturer.	Furnisher.	
			DISTRICT OF VANCOUVER—					
1915.								
July 19	Lemon Flavouring Extract.	55320	F. W. Walford, 950 Granville St., Vancouver.	3 bots.	75	W. H. Malkin & Co., Vancouver.	.....	Maikin's Best.
" 19	"	55321	City Cash Grocery, 712 Davie St., Vancouver.	3 "	30	Vendor.....	.....	Rose Brand. Sold as a mixture Packed specially for Vendor.
			DISTRICT OF VICTORIA—					
July 21	Lemon Flavouring Extract.	66759	Windsor Grocery Co., 817 Govt. St., Victoria.	3 bots.	75	Wm. Braid & Co., Vancouver.	.. ..	Braid's Best.
" 21	"	66762	West End Grocery, 1002 Govt. St., Victoria.	3 "	1.05	Crosse & Blackwell, London, Eng.	.....	Essence of Lemon.
" 21	"	66763	" "	3 "	75	Empress Mfg. Co., Vancouver.	....	Empress Brand.
" 21	"	66767	Dixie H. Ross & Co., 1317 Govt. St., Victoria	3 "	75	Vendors	.....	Dixi Brand.
" 23	Extract of Lemon.	66768	Copas & Young, 631 Fort St., Victoria.	3 "	75	Pure Gold Mfg. Co., Toronto.	... .	Pure Gold Flavouring Extract.
" 23	Lemon Flavouring Extract.	66770	Erskine & Co., 861 Johnson St., Victoria.	3 "	75	Imperial Extract Co., Toronto.	.....	Shirriff's Imperial Quintessence True Lemon.
" 23	"	66771	Henry W. Driver, 856 Yates St., Victoria.	3 "	60	Pure Gold Mfg. Co., Toronto.	.....	Pure Gold Flavouring Lemon Extract.
" 27	"	66673	Linden Grocery, Linden and May Sts., Victoria.	3 "	60	Empress Mfg. Co., Vancouver.	.....	Empress Brand. Extract of Lemon.
" 28	"	66775	Gladstone Grocery, Gladstone and Fernwood Sts., Victoria.	3 "	.75	W. A. Jameson Coffee Co., Victoria.	....	Jameson's Victoria Brand.
" 28	"	66777	E. B. Jones, 1800 Cook St., Victoria.	3 "	75	Wm. Braid & Co., Vancouver.	.....	Braid's Best.

SESSIONAL PAPER No. 14

LEMON FLAVOURING EXTRACT.

Description from Label.	Results of Analysis.							No. of Sample.	Remarks and opinions of the Chief Analyst.
	Specific gravity at 20° C.	Rotation in 2 dm. tube at 20° C.	Lemon Oil.	Alcohol by volume.	Citral.	Refractive Index of oil at 20° C.	—		

Concluded.

			p. c.	p. c.	p. c.				
W. H. Malkins Co. Malkin's Best Flav. Ext. Lemon.	0·8671	+12·2	3·80	67·70	0 25	1·4742	....	55320	Genuine.
City Cash Grocery. Lemon Mixture.	0 9808	0·0	0 00	15 08	0 03	..	. .....	55321	Sold as mixture.

D. O'SULLIVAN, INSPECTOR.

Wm. Braid & Co. Braid's Best Flav. Ext. Lemon.	0·9017	+ 2 3	0 60	69 45	0 14	1·4745	... .	66759	Citral below standard.
... .	0·8218	+64 1	20 4	93 54	0 67	1 4774	... .	66762	Genuine.
Empress Mfg. Co. Empress Brand. Lemon Extract.	0 9538	0 0	0 00	36 52	0 07	...	. . . .	66763	Citral low. Adulterated.
Dixi H. Ross & Co. "Dixi" Lemon Flav. Ext.	0·8968	+ 4 0	1 50	63 70	0 14	1 4740	. . .. .	66767	Citral below standard.
Pure Gold Mfg. Co. Pure Gold Flav. Ext. Lemon.	0 9300	0 0	Trace.	46 32	0 15	.	. . . . .	66768	"
Shirriff's Imp. Quintessence True Lemon.	0 9154	+ 1 1	0 30	54 78	0 36		. . . .	66770	Genuine.
Pure Gold Co. Pure Gold Lemon Extract.	0 9401	0 0	0 00	44 68	0 09		..	66771	Citral low. Adulterated.
Empress Mfg. Co. Empress Brand. Lemon Extract.	0 9019	+ 2 5	0 70	57 50	0 19	1 4743	...	66772	Genuine.
Govt. Standard. W. A Jameson Co. Lemon Ext. Artificial Coloured.	0 9321	0 0	Trace	53 3[illegible]	0 3[illegible]	....	.....	66[illegible]	"
Wm. Braid & Co. Braid's Best Flav. Ext. Lemon	0 8915	+ 3 2	1 50	63 50	0 16	1 4740	... .	66777	"

REPORT

OF THE

MINISTER OF AGRICULTURE

FOR THE

DOMINION OF CANADA

FOR THE YEAR ENDED MARCH 31

1916

PRINTED BY ORDER OF PARLIAMENT.

OTTAWA
PRINTED BY J. de L. TACHÉ,
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1916

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REPORT

OF THE

MINISTER OF AGRICULTURE

1915-16

To Field Marshal His Royal Highness Prince Arthur William Patrick Albert, Duke of Connaught and of Strathearn, K.G., K.T., K.P., etc., etc., etc., Governor General and Commander in Chief of the Dominion of Canada.

May it Please Your Royal Highness:

I have the honour to submit to Your Royal Highness a report of the Department of Agriculture for the fiscal year ended March 31, 1916.

I. GENERAL REMARKS.

Under the respective headings of the branches and divisions of this department will be found a synopsis of proceedings during the past year. The work in each branch has been efficiently carried on.

There has been no legislation affecting the department during this period.

By an Order in Council of date the 27th of April, 1915, the regulations under "The Animal Contagious Diseases Act," approved under date the 30th of November, 1909, and amendments thereto, were further amended by adding the following section:—

> "Sec. 88½. The feeding of swine upon garbage or swill, either raw or cooked, obtained elsewhere than on the premises where fed, is prohibited, unless special permission in writing is first obtained from the Veterinary Director General.
>
> "This amendment shall not come into force until three months after publication thereof in the *Canada Gazette*."

Vide Canada Gazette, Vol. xlviii, p. 3416.

This amendment came into force in the month of September, 1915.

By Order in Council approved under date the 18th day of August, 1915, the regulations under the Destructive Insect and Pest Act established by Order in

Council under date the 4th November, 1914, were amended by inserting the following words after the eleventh line thereof:—

"Truro N.S., and Digby, N.S., for nursery stock destined to points in the province of Nova Scotia only; from March 15th to May 15th, and from October 7th to December 7th."

Vide Canada Gazette, vol. xlix, p. 577.

In virtue of section 2 of "The Seed Control Act," the following Order in Council was passed on the 30th September, 1915:—

Whereas, it is deemed desirable, in the execution of the powers conferred by section 2 of the Seed Control Act that special grades of grain should be established exclusively for seed purposes without affecting, of course, the commercial grades fixed under the authority of the Canada Grain Act;

And whereas, the primary purpose of providing a special grade of grain that may be suitable for seed is to create a substantial supply of Red Fife and Marquis wheat, white oats and six-rowed barley that is clean, of superior quality and reasonably pure as to variety or type of grain, so that such supply of grain may conveniently be made available to farmers, seed merchants or grain dealers who sell seed at the minimum cost; the main object is the improvement of field crops;

Therefore, the Governor General in Council, under and in virtue of the provisions of Section 2 of The Seed Control Act, is pleased to order, and it is hereby ordered as follows:—

The nomenclature of grades of grain for seed purposes shall be as follows—the same having been revised and approved by the chief inspector or grain, viz.:

No. 1. Canada Western seed oats shall be composed of 95 per cent of white oats, sound, clean and free from other grain; shall be free from noxious weed seeds within the meaning of the Seed Control Act, and shall weigh not less than 36 pounds to the bushel.

No. 3. Extra Canada Western seed barley shall be composed of the six-row variety, sound, plump, free from other grain, of fair colour, free from noxious weed seeds within the meaning of the Seed Control Act and shall weigh not less than 48 pounds to the bushel.

No. 1. Manitoba Northern seed wheat shall be composed of 85 per cent of Red Fife or 85 per cent of Marquis wheat, sound, clean and free from other grain, and free from noxious weed seeds within the meaning of the Seed Control Act weighing not less than 60 pounds to the bushel.

For seed purposes Red Fife and Marquis wheat shall be kept separate.

No grain shall be accepted for seed which will require a large dockage to clean.

Seed inspectors shall observe the foregoing regulations in the grading of grain for seed purposes, nevertheless inasmuch as the operations of seed inspectors are dependent upon and follow after the operations of grain inspectors in respect of the grain to be examined as to suitability for seed purposes, the seed inspectors will remain subject to the approval of the chief inspector of grain or his deputy in all matters of procedure and prompt attendance to duties and for efficiency and accuracy of technical work done seed inspectors shall be responsible to the Minister of Agriculture.

Seed inspectors are authorized to certify ex-elevator the grain graded for seed purposes pursuant to the foregoing regulations.

Vide Canada Gazette, vol. xlix, p. 1062.

By Order in Council approved under date the 8th day of October, 1915, the regulations under The Destructive Insect and Pest Act established by Order in Council under date the 4th day of November, 1914, and amendment thereto, were further amended as follows:—

1. Section V of that part of said regulations bearing the title "General Regulations," is amended by adding thereto the words "and in the case of potatoes or potato crops," and subsection (*b*) of section X of said part of said regulations is amended by striking out the last line thereof, to wit, the words "Powdery Scab (*Spongorospora subterranea*)."

2. That part of said regulations bearing the title "Plant Disease Regulations" is amended by rescinding and striking out section IV thereof.

Vide Canada Gazette, vol. xlix, p. 1142.

By Order in Council approved under date the 25th day of December, 1915, the regulations under The Destructive Insect and Pest Act established by Order in Council under date the 4th day of November, 1914, and amendments thereto, were further amended by adding to that part of said regulations bearing the title "Plant Disease Regulations" the following section:—

IV. "Potatoes offered for export to the United States must be free from injurious diseases and insect pests."

Vide Canada Gazette vol. xlix, p. 2043.

By Order in Cocil of date the 14th day of February, 1916, the Orders and Regulations respecting Patents of Invention of date the 2nd October, 1914, made under and in virtue of the authority conferred by The War Measures Act, 1914, were amended as follows:—

1. That section 5 of the said Orders and Regulations be amended by adding thereto "and shall be valid notwithstanding any previous extension or extensions granted either under authority of the Patent Act or these Orders and Regulations."

2. That the following section be added:—

"10. In any case in which through circumstances arising from the present state of war, the Commissioner may deem it expedient, he may order that during the continuance of the war and for six months thereafter, neither the failure to construct or manufacture in Canada any patented invention, nor the importation of such invention into Canada shall in any way affect the validity of the patent granted in respect of such invention, notwithstanding anything in the Patent Act or in such patent."

A report from the Canadian Exhibition Commissioner for the fiscal year ended March 31, 1916, will be found as an appendix hereto. (See appendix No. 2.)

Having decided to participate in the Panama-California International Exposition held in San Diego, California, during 1916, the exhibits shown in the Canadian Pavilion at San Francisco in 1915 have been transported to San Diego and are now installed in one of the finest buildings on the Exposition Grounds, which has been placed at our disposal, free of charge, by the executive of the exposition.

This exposition is now in progress and will continue throughout the year 1916.

The Department was represented by Dr Charles E. Saunders, Dominion Cereal

ist, at the joint session of the Co-operative Association of the Great Plains and the American Association of Agronomy, held at Mandan, N.D., July 14 to 16, 1915.

The department participated in the meetings of the American Association for the Advancement of Science, the Association of Economic Entomologists, and the Entomological Society of America, which were held in Columbus, Ohio, from December 27, 1915, to the 1st of January, 1916, and was represented thereat by Dr. C. G. Hewitt, the Dominion Entomologist.

His Majesty King George the Fifth graciously presented to the Canadian Government the thoroughbred stallion "Anmer" from his racing stud for the breeding of remounts in Canada.

The horse arrived in Canada in March last in fine condition, and I feel sure that he will do much to stimulate the breeding of good remounts in the Dominion

II. ARTS AND AGRICULTURE.

DAIRY AND COLD STORAGE BRANCH.

The activities of the Dairy and Cold Storage Branch will be reported in detail in a special report for the branch. The following summary will serve to indicate the nature of the work carried on under the direction of the Dairy and Cold Storage Commissioner:—

I. Dairying.

COW TESTING.

As a result of the continued encouragement given to the cow testing movement, there has been a noteworthy increase in the number of cow testing associations organized, especially in the province of Quebec, in the number of dairymen throughout the Dominion who are interested in the plan, and in the total number of cows whose actual yield of milk and fat is systematically checked.

Cow testing includes such attention to the feeding question that not only is a larger yield per cow being obtained, but the feed cost of milk and fat is being appreciably lowered in many herds through feeding more intelligently and more in proportion to the cow's actual capacity of economical yet profitable production.

DAIRY RECORD CENTRES.

All the thirty-five dairy record centres have continued in operation. Under the supervision of the expert in charge of each centre new members have been constantly added, while in numerous instances very substantial increases in the yield per cow have been obtained following two principles which dairy records prove to be profitable, the weeding out of poor cows, and the tendering of better care and feed to the whole herd.

The immediate assistance to dairy record centres and cow testing associations includes:—

(1) The supply, free of charge, of blank record forms, preservative tablets and acid for testing, as well as cash payments to men who test milk samples; (2) the distribution of bulletins, circulars and reports on the work; (3) the publication in newspapers of numerous popular articles on varied aspects of cow testing; (4) the holding of frequent meetings when addresses and explanations are given by the recorders, provincial dairy instructors and members of the headquarters staff; (5) personal visitation of members and other dairymen by the recorders and the three provincial supervisors; (6) an extensive and increasing correspondence.

DAIRY STATIONS: EXPERIMENTAL WORK.

The combined cheese factory and creamery at Finch, Ont., was operated during the entire year. The patrons delivered 61,808 pounds more milk and received $5,013.06 more money than in 1914. The average price paid the patrons per 100 pounds of milk in 1914 was $1.19. In 1915 they received $1.35 per 100 pounds.

The Brome creamery, at Brome, Quebec, was burned down on July 11. Satisfactory arrangements were at once made with the Knowlton creamery, Knowlton, Que., to handle the cream from the two skimming stations at Owen's Corners and Brome Centre, as well as from the patrons at Brome. This arrangement was continued until December, when the business was closed down. The entire plant has since been disposed of.

The Madawaska creamery, situated at St. Hilaire, N.B., is operated under the supervision of the Dairy Division. The farmers in this district have very small herds of dairy cattle which makes the successful operation of the creamery a difficult problem, but with careful assistance it should in a few years be on a good paying basis. The output of the creamery in 1915 was 36,919 pounds of butter. An effort is being made to have the farmers along the different lines of railway ship their cream to St. Hilaire. The prospects are good for a substantial increase in the number of patrons in 1916.

EXPERIMENTAL WORK.

Experiments were conducted at Finch on the "Causes of Variation in the Percentage of Fat in Hand separator Cream" and also on the "Value of Milk Containing Different Percentages of Fat for Cheesemaking." The information obtained was presented at the Dairymen's Associations in the different provinces and at many other meetings.

Experiments were made in manufacturing one-pound Cheddar cheese. These cheeses have become very popular in the city of Ottawa, and it looks as if there would be quite a demand for this style of cheese in the future. A 5-pound cheese was also made which sells very well both locally and in Ottawa.

II. Creamery and Farm Cold Storage.

A bonus of $100 is paid to any creamery that erects suitable cold storage rooms according to plans and specifications furnished free by the department.

Working plans and specifications for small cold storages and dairies suitable for the use of farmers, hotels, and country merchants are also distributed free to all who apply for them.

There were thirty-nine applications for creamery cold storage bonuses received during the year, of which number thirty-three were approved. Since the year 1897 nine hundred and forty-seven creameries have received a bonus.

III. Refrigerator Car Services.

FOR BUTTER.

The arrangement in force for several years past with the railway companies in Ontario, Quebec, and Nova Scotia, for refrigerator car services for butter, covering the period from the middle of March to the middle of October, was effective again last year. These cars are run weekly or fortnightly, according to the requirements of the route, on an advertised schedule, so that shippers can deliver their butter to the station with the least possible exposure to heat. A shipper may forward any quantity from one package upwards, and pay only the regular less-than-carload rate, without extra charge for icing. The department guarantees, on each car, two-thirds of the earnings of a minimum carload from starting point to destination, plus about two-thirds of the cost of icing. Inspectors are engaged at freight terminals in Montreal, Toronto, and Halifax to watch the unloading of these cars, to report on their condition, on the temperature of the butter and on the quantity of ice remaining in the bunkers. The reports are sent daily to headquarters at Ottawa, any defects or deficiencies in the service are then brought to the attention of the responsible railway authorities. In this way an efficient service is maintained.

FOR CHEESE.

Commencing about the middle of June and extending for a period of eleven weeks, the department pays the icing charges, up to $5 per car, on a limited number of refrigerator cars, when used for carload shipments of cheese from one station.

FOR FRUIT.

A similar arrangement, except that there is no limit to the number of cars, is in force from the first of August to the first of October, for shipments of early apples and tender fruits, in carloads, consigned to Montreal and Quebec for export in cold storage.

IV. Cargo Inspection.

Cargo inspectors are stationed at Montreal, Quebec, Halifax, Liverpool, Bristol, London, and Glasgow, to report on the condition in which perishable goods are delivered to and discharged from the steamships, and to supervise the handling generally. A large number of self-recording thermometers, known as thermographs, are used in this service; the records of temperature thus obtained being available for interested shippers of fruit, cheese, meats, etc. A Canadian shipper may, by application to the Dairy and Cold Storage Commissioner, secure complete records of any consignment from the time the goods arrive at the loading port in Canada until they are delivered to the consignees in Great Britain. Owing to the scarcity of tonnage the number of sailings during the year between ports in Canada and in Great Britain was very considerably reduced.

V. The Grimsby Pre-Cooling and Experimental Fruit Storage Warehouse.

The experimental cold storage warehouse, erected at Grimsby, Ont., under the direction of the Dairy and Cold Storage Commissioner, has been used the past season for:—

(1) the pre-cooling of fruit for the general public;
(3) demonstrations in fruit handling, packing and transportation;
(3) experimental refrigeration tests with different varieties of fruit.

During the season, forty-three cars of fruit including strawberries, raspberries, plums, pears, cherries, and peaches were pre-cooled for western shipment. The cold storage space was available to growers, shippers and canners for the holding of fruit over the week-end, or at a time of glutted markets, and resulted in a large saving. Demonstrations were made in large lots with various packages for strawberries, cherries, tomatoes and peaches.

Valuable data have been secured and published in special bulletins as to various styles of packages, and the shipping qualities of different varieties of fruits.

Experimental work has been in progress with the rate of cooling fruit, with comparisons of refrigerator car temperatures, and with the degree of maturity at which fruits should be picked for pre-cooled shipments.

VI. The Enforcement of Laws.

DAIRY LAWS.

The work of inspection of dairy products has been carried out during the past year along the same lines as in the previous year.

The staff has been the same, consisting of six inspectors, three of whom devote their entire time to the inspection of dairy products. Three inspectors devote part of their time to other lines of work for the department.

Those engaged in the manufacture and sale of dairy products have become familiar with the provisions of The Dairy Industry Act, 1914, and Regulations passed under authority of this Act.

Fewer samples of butter have been complained of on account of containing water, than during the previous year.

The fact that the Act and Regulations are being better observed is indicated by the decrease in the number of convictions. During the year ended March 31, 1915, there were forty-four convictions for violations of the Act and Regulations, while during the year ended March 31, 1916, there were only twenty-nine convictions.

COLD STORAGE LAWS.

The Cold Storage Act (chapter 6, 6-7 Edward VII), of which the details of administration are also in the hands of the Dairy and Cold Storage Commissioner, is intended chiefly to encourage the erection of small local public cold storage warehouses for the preservation of perishable food products. It provides that the Government may grant a sum not exceeding 30 per cent of the total cost of site, equipment and construction of such public cold storage warehouses. The subsidy is paid in instalments which are spread over a period of four years. No assistance is given to any company proposing to build in places where a public cold storage is already in existence. The rates charged in subsidized warehouses are subject to the approval of the Governor in Council.

The Cold Storage Warehouse Act of 1914 gives the Governor in Council power to make regulations respecting the operation and control of cold storage warehouses and the articles of food stored therein. No regulations have yet been made under this Act.

VII. Publications.

An annual report will be published giving in detail the work of the branch. During the year under review the following publications have been issued:—

Bulletin 44. The Cold Storage of Food Products.
" 45. The Testing of Milk, Cream and Dairy By-products by means of the Babcock Test.
" 46. Determination of the Specific Gravity of Milk; The Percentage of Acid and Casein in Milk; Adulteration of Milk by Skimming and Watering; The Percentage of Water and Salt in Butter; The Percentage of Fat and Water in Cheese.
" 47. The Grimsby Pre-cooling and Experimental Fruit Storage Warehouse.
" 48. Pre-cooling, Shipment and Cold Storage of Tender Fruit.
Circular 13. Commercial Pre-cooling and Storage of Fruit for the Season of 1915.
" 14. Causes of Variation in the Percentage of Fat in Hand-separator Cream.
" 15. Cherry Pre-cooling Possibilities.
" 16. Cow Testing Notes.
" 17. The Probable Scarcity of Rennet for the Manufacture of Cheese.

Frequent contributions are made to the Agricultural Gazette.

Members of the staff address a large number of meetings during the year, they act as judges at dairy exhibitions and at milking competitions, and through correspondence, increasingly heavy, act in an advisory capacity on a variety of subjects.

Two of the staff, A. W. Sorensen and E. W. Painter, have enlisted for overseas service.

THE SEED COMMISSIONER'S BRANCH.

The general policy of this branch, as outlined in previous reports, has been continued and some new work undertaken from which it is hoped much benefit to agriculture will be derived.

SPECIAL GRADES FOR SEED GRAIN.

With the co-operation of my colleague, the Minister of Trade and Commerce, special grades for wheat, oats, and barley entering the government interior terminal elevators have been provided. A section of each of the elevators at Saskatoon, Moosejaw, and Calgary is set apart for car-lots of grain that may be cleaned for seed. The grain is passed upon by a seed inspector as it comes into the elevator and is re-inspected during cleaning and when shipped out. The inspectors are responsible to the Seed Commissioner so far as certifying to the seed grades is concerned.

This grain is available to dealers or farmers at an advance over its commercial grade price sufficient to meet the extra dockage and the cost of storing, cleaning and sacking. On March 18, approximately the following quantities of seed grain were in store at the government elevators:—

Red Fife wheat	8,500	bushels
Marquis wheat	120,000	"
White oats	71,000	"
Six-rowed barley	3,900	"

Dealers and farmers have had great difficulty in securing, except at high prices, grain that was free from noxious weed seeds. One of the principal reasons was that in the ordinary course of handling grain through the terminal elevators, the clean was mixed with that badly contaminated with noxious weed seeds, so that practically none of it was fit for seed. It is anticipated that this difficulty will be to a great extent overcome when producers and purchasers are familiar with the new grades, and that large quantities of grain free from noxious weed seeds within the meaning of the Seed Control Act, and otherwise of high quality, will be available in Eastern Canada as well as in the West at a comparatively small advance above commercial grade prices.

VOLUNTARY SEED CORN CONTROL.

Owing to the unusual weather conditions last fall, the corn crop did not mature normally and the supply of good seed, in Ontario as well as in the United States, promises to be short this year. In order to meet the present situation, and if possible

to put the seed-corn trade in Canada on a more satisfactory basis, I authorized the Seed Commissioner to offer the growers the co-operation of the seed inspectors and laboratories for the introduction of a new system of seed-corn control.

The plan is based on the voluntary system which has been successfully employed in Europe. An agreement is provided whereby the grower undertakes to sell seed corn in the ear under clearly defined standards of quality and other guarantees. An alphabetical list of the growers under control is published by the department.

Many of the best and most extensive seed-corn growers are offering seed under the agreement and already something over 40,000 bushels of Extra No. 1 and No. 1 have been listed.

About 7,000 ear tests of corn have been made at the Ottawa laboratory in connection with the seed sampled for grading. Most of the lots have averaged above 90 per cent, and many above 95 per cent, the standard for Extra No. 1 seed corn. It is hoped that this system of marketing corn will prevent much of the misrepresentation that has been practised and that it will be mutually beneficial to growers and purchasers.

PAPER PACKET SEED INVESTIGATION.

An investigation into the paper packet seeds put on the market by the leading seedsmen has been commenced. Last spring about 2,500 samples were collected by the inspectors and sent to the Ottawa laboratory. They were tested for germination and examined to determine the comparative quantity supplied by different dealers and the range between packets from the same seedsman. The work will probably be continued for several seasons, but the results already obtained show that with most kinds of garden seeds contained in these showcase packets and marked at a given price per packet there was a substantial difference in the net weight and percentage vitality of the seeds put up by different seedsmen, and even with packets of the same variety filled in the same seed house the net weight of the seed was commonly found to be markedly variable. In many instances seed which was scant in quantity was also low in germination.

HOME PRODUCTION OF ROOT AND VEGETABLE SEEDS.

On account of the continuance of the European war, a serious situation has been created in respect to the supply of field root and vegetable seeds. Previous to the war, subvention was offered to growers to encourage the production of these seeds in Canada. When it became apparent that the European supplies would likely be cut off or greatly curtailed, further efforts were made to stimulate home production. Farmers and gardeners were advised to save parent stock for planting in the spring of 1915, and specially trained men were employed to direct growers and inspect their crops. During the summer of 1915, field root and vegetable seeds were grown by 163 farmers, and inspected by officers of this branch. Many of these farmers were growing only sufficient seed for their own use; sixty-four produced seed which passed inspection and for which subvention was paid. The seed produced on which subvention was paid amounted to over 36,300 pounds, the subvention being over

$1,500. The principal kinds and approximate amounts produced were: Sugar beet, 23,000 pounds; mangel, 8,200 pounds; sugar mangel, 1,500 pounds; swede, 3,000 pounds; radish, 400 pounds; garden beet, 350 pounds; onion, 350 pounds.

Owing to the accumulation of large stocks previous to the outbreak of war, it is not anticipated that there will be serious difficulty in supplying demands of most kinds of seed this spring; but unless much more seed than usual is grown in North America this year the situation may be serious for the spring of 1917. It is gratifying to be able to report that, on the whole, results in Canada are satisfactory, and it is to be hoped that a large number of farmers will grow at least sufficient seed for their own use this season in order to insure a supply for next spring.

FIELD CROP COMPETITIONS AND SEED FAIRS.

The policy of paying subvention to the Provincial Departments of Agriculture on the basis of two-thirds of the money paid out for prizes in field crop competitions, seed fairs and provincial seed exhibitions, within certain limitations, has been continued and apparently with satisfactory results. The number of competitions continues to increase and reports indicate that they stimulate interest in the production and use of better seed.

During the summer of 1914, 357 field crop competitions were conducted, on which a total subvention of $25,140.56 was paid. In the winter of 1914-15 the subvention for the 145 local seed fairs amounted to $6,167.90, and $4,251 was paid for ten provincial seed exhibitions. During the summer of 1915 there were 408 field crop competitions on which subvention amounted to $25,847.18.

SEED TESTING.

The work of testing seeds for dealers and farmers continues to increase. From September 1, 1915, to March 31, 1916, 10,228 samples were received at the Ottawa laboratory, compared with 9,022 for the same period last year.

During the fall and early winter most of the samples are from wholesalers. Later in the season a larger proportion comes from retail dealers and farmers. This year an unusually large proportion from wholesale dealers represents seed grown in the United States, as the Ontario crop of both common red and alsike clover seed is very poor. Scarcely 50 per cent of the red clover received from farmers this year has been sufficiently pure to be legally sold without recleaning. One difficulty that farmers have in preparing clover seed for market is that they find it almost impossible to get the proper screens with which to equip their fanning mills, as often they are not supplied by the manufacturers.

Most of the timothy seed sold in Canada is imported from the United States. The general quality varies considerably, depending on weather conditions. It is usually fairly pure, but during the past season most of it has been too badly hulled to grade No. 1. Some excellent Canadian grown timothy has been received from Quebec and Western Canada. Much of the Alberta-grown seed put on the market has been badly hulled, but this apparently is due to lack of care in handling the crop. Seed can be

produced quite cheaply in parts of Western Canada, and there seems to be a good opportunity there, if care is taken to handle the crop properly.

The seed testing at the Calgary laboratory consists largely in testing samples from farmers for germination. Oats usually form a large percentage of the total received. Last fall, though serious frost was not general in the West until most of the grain was ripe, there was considerable injury in some districts. Of the samples of oats received at Calgary from Manitoba up to February 22, 41 per cent germinated less than 80 per cent, and 12 per cent less than 50 per cent; from Saskatchewan, 33 per cent germinated less than 80 per cent, and 16 per cent less than 50 per cent; from Alberta, 40 per cent germinated less than 80 per cent, and 12 per cent less than 50 per cent.

SEED INSPECTION.

It is gratifying to be able to report that improvement in the seed trade is clearly indicated by inspection work during recent years. Last spring there was a decided increase in the proportion of high grade seed on the market, and greater care was exercised by both wholesale and retail dealers to comply with the Seed Control Act.

Previous to the inception of seed control legislation, much of the seed distributed throughout Canada was badly contaminated with weed seeds and low in general quality, and in many cases the purchaser had little means of knowing the quality of the seed offered. It is now exceptional to find seed put out by any of the large dealers which is not properly marked with the grade and otherwise sold in conformity with the law. Defining definite standards of quality for timothy, red clover, aliske, and alfalfa offered for retail and having the grade number marked has resulted in a greatly increased demand for high-grade seed, and a wider spread in prices between the high and low grades. One result of this has been that farmers who attempt to grow clover seed on dirty land find that much of their crop is unmarketable, except at a low price, because of the heavy loss in cleaning to make it saleable for seeding purposes. On the other hand, farmers who have clean land and take the trouble to hand-weed their crops, find ready sale for their seed at good prices.

Last spring thirty-seven men were employed as temporary inspectors to assist the permanent district officers. The inspectors visited 2,268 places, compared with 1,861 in 1914, and 4,078 dealers or farmers. Many of these places were visited several times. Although the inspection was more thorough than ever before, fewer violations of the Act were detected, which is an excellent indication of improvement in the trade. In the spring of 1915, 666 violations of the Act were detected by the inspection staff, compared with 708 the previous season, and 839 in 1913. Most of the violations were of a minor character, such as failure to indicate the grade number.

GENERAL WORK.

The general educational work, including assistance at short judging courses, general farmers' meetings, the distribution of reference collections of weed and economic seeds and the publication of reports and bulletins, has been continued. The usual financial assistance has also been rendered to the Canadian Seed Growers' Association.

THE LIVE STOCK BRANCH.

In referring to the work of the Live Stock Branch, I am glad to be able to record a gratifying development of our export trade in live stock products with Great Britain and, to some extent also, with France. As will be pointed out later on, there were forwarded during the late fall and early winter, several shiploads of frozen beef which were purchased by the British Government on Army account. The bacon trade has again assumed important proportions and has absorbed all the surplus hogs of the country. During the year, also, Canada exported to the same destination eggs to the value of $2,800,000.

Following the period of financial depression and the very striking curtailment of meat consumption in the country, just precedent to and following the outbreak of the war, the profitable development of this export business has been of very great financial advantage to the country. The value of the business itself has had an important effect in assisting to sustain our national credit, while to those engaged in the industry the export outlet has relieved a situation which might have become very grave had our farmers been under the necessity of finding a market for their surplus, at a time of money stringency and restricted local demand. As it is, prices have been driven to a very high level and, in consequence, there is, at present, very evident indications of an increased production in practically all classes of our farm animals.

The stimulus thus given to live stock production, notwithstanding the high price of grain and of other fodder, is likely to have an important bearing upon the future of our agriculture. The extensive resources of our Dominion, agriculturally, will probably never be fully realized except through the continuous and progressive extension of our live-stock industry. It has never before been so clearly demonstrated that the financial stability of farming is dependent upon the breeding and feeding of live stock. This fact has been demonstrated not only to the farmer himself but, as well, to the banker and business man. It will at once be evident therefore, how significant, at the present moment, is the development of a live-stock export trade. It will be clear also how important it is that every reasonable assistance should be given toward promoting the industry as a whole and the increased activities of the Live Stock Branch are in keeping with our general policy, therefore, as relating to the department's attitude toward agricultural development.

Horse Division.

During the year this division continued the work of loaning stallions to associations in districts requiring this aid, throughout the Dominion. Forty-three stallions in all were purchased and placed. The department now owns 146 horses, placed throughout the various provinces. Over 75 per cent of the associations have sent in their renewal applications, while of the remainder, at least 15 per cent have asked that the stallions be exchanged, some of these being horses that have been placed two or three years. During the year many letters have been received expressing the thanks of associations, and telling of the improvement that was being brought about in the

horse stock in the districts, through the use of the pure bred stallions loaned by the department. The stallions, as a whole, have been remarkably healthy and have invariably proven sure foal-getters. During the year only one horse was lost, due to catching cold while being shipped. Considering the number of horses and the widely different conditions under which they are kept the showing is an extraordinary one. Already, a large number of applications have been received for 1916-17, and it is evident that a goodly number of horses will be required for distribution.

Federal Assistance to Clubs.—A number of districts during the year organized for the purpose of hiring stallions for the use of members and to take advantage of the grant made by the department. These clubs were formed chiefly in the western provinces, and have proven very satisfactory, wherever tried. Judging from inquiries a large number should take advantage of the offer this year. Some of the best horsemen in the Dominion have written in to say that, in their opinion, the scheme is one of the best that has ever been inaugurated in any country in aid of the horse industry.

During the year an official of the Commonwealth of Australia, having seen a brief outline of the policy in one of the agricultural papers of that country, wrote for fuller information, which was accordingly sent. In his letter, acknowledging receipt of the booklets, he pointed out that, in his opinion, Canadian horsemen might very well look to Australia as a pure-bred market for Clydesdales, after the war. He suggested that a trial shipment should be sent over for the purpose of establishing a horse trade between the two countries.

During the first part of the fiscal year the horse trade was somewhat slow, and prices were accordingly lower than they had been some years previously. However, during the last three months of the year, conditions changed very materially and demand for good farm chunks increased, particularly in the West. During these three months almost 6,000 horses went through Winnipeg into the western provinces. During the same period almost 2,000 horses were exported to the United States, and from the outlook it would appear that buyers from across the line would continue to come for some time at least. Prices for good farm chunks and street horses have risen accordingly, and it would appear that these prices will be maintained for some time to come. Since the outbreak of war upwards of 50,000 horses have been purchased for army purposes. Buyers now report that horses are becoming scarcer and harder to get.

Through the Live Stock Branch, therefore, I have considered it advisable, to urge, by means of the agricultural press and otherwise, that farmers should not only keep their good mares, but breed them, as there is every likelihood of there being a scarcity of horses in the very near future.

Cattle Division.

DISTRIBUTION OF PURE-BRED BULLS.

The number of pure-bred bulls loaned by the Department through the Live Stock Branch to farmers' associations throughout Canada has increased year by

year since the inauguration of the policy in 1913. On December 31, 1915, the number in the hands of associations was as follows:—

Breed.	B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	N.S.	P.E.I.	Total.
Shorthorn	8	124	221	44	68	94	1	9	22	591
Ayrshire	8	3	4		4	126	5	21	7	178
Holstein	8	4	20	10	13	29	1	3	2	90
Hereford		9	2	9	2	5				27
Angus	1	1	2	4	1					9
Canadian						9				9
Jersey	1					2	1	3		7
Guernsey	1							2		3
Red Polled	1		1							2
	28	141	250	67	88	265	8	38	31	916

These sires are loaned for only one year at a time, and an association is required to meet the cost of maintaining an animal as long as it remains in its hands. The department reserves the right to inspect the animals at any time and withdraw assistance in the event of it being found that an association is not living up to its agreement. An association may renew its application for the loan of the same animal at the expiration of its term, and, if all the requirements have been complied with, such applications are promptly approved. When necessary the sires are exchanged, but only for animals of the same breed. The advantage of systematic inspections of bulls loaned has been demonstrated during the past three years. Our inspectors have, by their advice and recommendations, been able to do much towards promoting the objects of the associations, and have in many instances prevented organizations from disbanding after a year or two of effort. In addition it has been found that our bulls are kept in much more satisfactory condition when inspections are made regularly. Usually one visit in the course of a year is sufficient, but where it is found necessary, two and even three visits are paid.

Upwards of 500 associations have been in operation for two years or over, and there is now some opportunity to judge of the results obtained. In this connection it is gratifying to note that the annual reports which have been received from associations in the spring of 1916 have, with very few exceptions, indicated that the use of the sires supplied has resulted in a very material improvement in the calf crop of the districts and has increased interest in live stock production. The reports of our inspectors this year so far as they have been received also indicate that the bulls are being much better handled than even a year ago, and that the quality of their progeny is very superior to that of the ordinary stock of the district. An effort is being made to encourage the members of the associations to feed their young stock properly so that the advantage obtained by superior blood will not be lost through unintelligent handling.

PURCHASING BREEDING STOCK IN CANADIAN PORTS.

To effect a more equal distribution of our live-stock population the granting of assistance through the Live Stock Branch to farmers wishing to secure good breed

ing stock has been authorized. Under this policy the department pays reasonable travelling expenses of the representative of individuals or associations from any section of Canada desiring to purchase one or more carloads of breeding stock in any part of the country, the expenses allowed to cover railway transportation and living expenses from the home of the purchaser to the point at which it is expected that the purchase will be made, also hotel expenses and livery expenses for the time which should be sufficient to purchase the consignment. No assistance in the payment of freight is rendered, nor is any responsibility assumed by the branch in connection with the purchase price of the consignment. Further, no assistance under this policy is rendered if stock is purchased for speculative purposes. If desired, a suitable person is nominated by the Live Stock Commissioner to accompany the purchasing agent and assist him in buying and shipping the consignment.

This policy has been widely taken advantage of during the early spring months of 1916, and it is expected that the plan will have an important influence in conserving the breeding stock of the country and in increasing our live stock production.

RECORD OF PERFORMANCE.

During the year 1915-16 the interest previously exhibited in this work has been fully sustained. There has been a larger increase in the number of applications than for any previous year, and also fewer withdrawals. The number of cows qualifying has also been greater. The record of average production of cows of all breeds have shown an increase so that, not only are more cows qualified, but the average production is larger. These two facts indicate that more care is being taken in the breeding and feeding of pure-bred dairy cattle than formerly, the credit for which is, to some extent at least, due to this work.

The Record of Performance is now being recognized in other countries to be sufficiently accurate as a yearly test for all practical purposes.

The following is a short summary of the work for the year:—

Number of cows entered in the test—	
Ayrshires	677
French-Canadians	43
Guernseys	19
Holstein-Friesians	713
Jerseys	198
Shorthorns	121
Total	1,771
Number of cows qualified—	
Ayrshires	175
French-Canadians	8
Guernseys	7
Holstein-Friesians	233
Jerseys	57
Shorthorns	34
Total	514
Number of bulls qualified—	
Ayrshires	14
Holstein-Friesians	9
Jerseys	4
Shorthorns	1
Total	28

APPENDIX.

The records tabulated in the appendix are for cows which have produced sufficient milk and fat to qualify, but which have failed to freshen within fifteen months after the commencement of the test:—

Ayrshires	18
Guernseys	2
Holstein-Friesians	50
Jerseys	10
Shorthorns	3
Total	83

Sheep and Goat Division.

The policy of loaning pure-bred sires to farmers' associations has now been in operation three years. Assistance of this nature is confined to districts where the farmers have difficulty in securing well-bred sires, or are in financial circumstances which restrict their ability to purchase the most suitable type of breeding male. In pursuing this work, it has been the purpose of the department to limit an association to a single breed, and advise persistent use of the original selection. Adherence to this system by societies has already shown results of the greatest benefit in fostering not only a keen desire amongst members to produce a better class of live stock, but in creating, as well, a uniform type within a district. An advance toward the establishment of the community system of breeding, which obtains so satisfactorily in Great Britain, is a direct result of this policy of the department.

Over four hundred rams of all the most prominent breeds were distributed in 1915. A decrease from the previous season occurred in the number of boars, namely, from 168 to 48. This was due to the diminished production of breeding hogs in the western provinces, from which many of the applications for boars had other years been received.

As a means of creating a greater interest in sheep production and more particularly of drawing attention to the most approved methods of preparing the fleece, an exhibit of wools has been collected together and presented at a large number of fairs throughout the Dominion. Many features, illustrating successful systems of pursuing sheep raising in this country, are also included. The interest alone displayed by the public in this exhibit augurs well for the future development of the sheep industry.

Still further encouragement is offered to sheep raisers through the medium of prizes for wool in the fleece by many of the exhibitors. This represents an innovation which is fully appreciated by wool growers and has tended to awaken a lively interest in the production of an improved product of wool. I feel that exhibits of this nature will very shortly assume equal proportions at our fairs to those of fat and pure-bred sheep.

The sheep industry generally has never been in a more flourishing condition. The upward trend of prices for both wool and mutton which has occurred has been most wholesome in the way of attracting interest to the sheep industry. Sheep are beginning to form a permanent asset in farming operations. For years, during the period of low prices, the industry was looked upon as a side issue, and farmers paid

little attention to the maintenance of their sheep. They had nothing before them to set as an incentive either to enter into the business or, if pursuing it, to improve their product. The opposite condition obtains to-day. A redevelopment of the industry is occurring upon a basis which will mean not only a steady increase in numbers but the production of a class of sheep and wool which will bring recognition throughout the world to Canadian flocks.

Poultry Division.

The most marked feature affecting the development of the poultry industry during the year has been the unprecedented demand for Canadian eggs and poultry on the part of the British market. Fortunately this demand occurred at a time Canada had a surplus for export. For some years previous to 1914, owing to the unusual demand in the western provinces, Canada had been importing eggs in quantities. The high prices prevailing, as a result, had the usual effect, however, and greatly increased production took place, not only in the eastern, but also in the western provinces as well. Some idea of the extent of the increase in production may be obtained from the following table showing the exports and imports of eggs during the past four years:—

Canadian Exports and Imports of Eggs.

Fiscal Year ending March 31.	Exports. Domestic Produce.	Imports.
	Doz.	Doz.
1913	147,419	13,240,111
1914	124,002	11,274,036
1915	3,592,899	4,493,396
1916	7,898,322	3,783,952

It will be noted that the exports last year were more than double those of the previous year and at the same time Canada reduced her imports by nearly a million dozen. Since 1913 the increase in production has amounted to nearly 18,000,000 dozen, and it is estimated that the egg crop of Canada for the year 1915 was worth at least $30,000,000.

During the year, in addition to continuing the egg and poultry trade improvement campaign initiated previously, special inquiry has been made into the requirements of the British market, and everything possible done during the time to insure that the quality of Canadian eggs going forward is such as will serve as a fitting advertisement for the Canadian product.

Within the Dominion, in addition to activity along lines of co-operative organization, the work of interesting both producers and consumers in the matter of improved quality has been continued.

During the year the Egg Candling Demonstrations were given at a number of the larger exhibitions and winter fairs in the eastern provinces and in British Columbia. In several instances the Egg Exhibit of the branch was also displayed.

In all, a total of some sixty-three thousand people attended the demonstrations, and most of these left their names for candling appliances. An interesting feature of note was the increasing number of consumers who were learning to determine quality in eggs by candling. This was noted particularly in Toronto, Ottawa, Montreal, and Amherst, N.S.

Egg Classes at Exhibitions.—With a view of acquainting people more generally with the standards for Canadian eggs, arrangements were made with a number of the larger exhibition associations to offer prizes for eggs in accordance with these standards. The response was particularly gratifying, especially in the instance of the Canadian National Exhibition at Toronto, where over seven thousand dozen were entered for competition, and at the Ottawa Winter Fair in January when over 800 dozen fresh-gathered eggs were shown. This year classes for eggs graded in accordance with the standards are being included in the premium lists of fifteen of the larger exhibitions in Canada.

Meetings attended.—During the year officers of the Poultry Division took part in no less than two hundred and seventy-two meetings, at which it is estimated that 19,791 persons were in attendance, apportioned as follows by provinces:—

Province.	No. of meetings.	No. of in attendance
Ontario	74	4,458
Quebec	17	311
Manitoba	21	694
Saskatchewan	1	250
Alberta	27	2,206
British Columbia	5	226
Prince Edward Island	127	11,646
Total	272	19,791

AID TO FAIRS.

During the year, it had been brought to my attention, from various sources, that, owing to the financial depression, the larger agricultural fairs and exhibitions throughout Canada were likely to find themselves in a very embarrassing position as regards their financial obligations. Having to face greatly lessened receipts, through diminishing attendances and decreased entries, certain of them proposed to cancel their exhibitions entirely. Believing that this would be a very unfortunate development, particularly at a time when every sound agricultural movement needed to be fostered and encouraged, I thought it advisable to enter upon a policy of aid to the larger and more important fairs of the country. With this object in view, it was decided to grant assistance to fairs and exhibitions which should open their prize lists in all the utility classes of live stock and poultry to entries from any part of the Dominion and which had distributed for prizes in these classes, at their last preceding show, a minimum of $5,000. By this means it seemed possible to draw a reasonably distinct and logical line as between the shows which should receive aid under this policy and the shows of a more or less provincial nature which had been receiving assistance in one form or another through Provincial Departments of Agriculture. To shows qualifying for the grant a sum equivalent to half the amount paid in prizes in the classes

mentioned at the last preceding show, was given, it being understood that in no case should the grant exceed the maximum of $5,000. It was decided to require that the prize lists in each case should be submitted to the Live Stock Commissioner for approval.

Under this policy, thirty-two shows in all participated in the aid given and received in the aggregate the sum of $114,787.26.

THE MARKETS POLICY.

During the course of the summer, a new feature in connection with the work of the department was initiated. I refer to the organization of a markets policy, to consider and deal with matters affecting or relating to the marketing of live stock and live stock products.

It has been responsibly predicted that there will be an unprecedented demand for live stock following, and as a direct result of, the war. The very heavy drain upon the Australian and the Argentine herds for the filling of army contracts; the wholesale destruction of the stocks of cattle in Germany, Belgium, and France, together with the increasing interest which is being evidenced by Great Britain in purchasing supplies within her own dominions and, particularly, in Canada, would seem to indicate that this country may expect to be called upon to furnish, for the world's market both meats and meat products to an extent and volume never before experienced. I would refer at this point, especially, to the opportunities for the development of an egg trade, a bacon trade, and a chilled or frozen beef trade, as well as to the possibility of building up a substantial export business, even if only temporary, in such commodities as frozen pork, beef offal, corned beef, and army rations of various descriptions. Anything that can now be done, therefore, to place Canada in a stronger position to take advantage of this prospective trade should not only result in better returns to our farmers but, as well, in materially strengthening the financial and commercial position of the country.

To secure this end, in so far as it is possible to do so, and to obviate many of the difficulties which at present exist, I have felt justified in providing that definite attention be given to the whole marketing problem as related to live stock. To make clear the scope of the markets policy as it is being organized, it may be pointed out that, amongst other things, it will involve the consideration of:—

1. A comprehensive intelligence system.
2. The organization of a system which shall provide for the dissemination of the information thus acquired to farmers, feeders, produce men, and others interested in the live-stock trade.
3. The extension of the system of organization of farmers for co-operative action in the sale of their products.

In addition to these important lines of activity, attention will be directed:—

1. To the promotion of a system of sale by grade and payment according to quality.
2. To the problems of transportation by railroad or steamship, as affecting live stock trade.
3. To an improvement in the method of handling stock from producer to packing house, with the view of avoiding losses by injury, of providing against waste and of safeguarding the position of the farmer in the sale of his stock.

4. To the development of an export trade by such means as may reasonably and practically be undertaken and to the securing of a national reputation for the products which we may have to offer for sale on the export market.

The work has been placed in charge of the Assistant Live Stock Commissioner. The programme will be carried into effect through the utilization of the existing machinery in the Live Stock Branch and by the appointment of special additional officers who will assume responsibility for certain new and important features of the work already alluded to.

During the short interval since the initiation of the policy, considerable work has been accomplished. The most definite results have been achieved in connection with the co-operative sale of wool and of eggs, and in the improvement of conditions affecting the egg trade as considered from the standpoint of produce business. It should be explained that these particular phases of the work have been in operation for a considerable period and, as introductory to the extended programme which has now been undertaken, they have reached the status of complete and successful units in the movement which is being carried forward. There follows a statement of what has been accomplished during the current year in this direction.

SHEEP AND WOOL.

Similar assistance as last year was extended to sheep-raisers in the preparation of their wool for market. This comprises instruction in the grading or classification of the wool at the time or very shortly after shearing. Grading, it has been found, comprehends one of the most effective means of demonstrating to wool growers the variation in quality and condition which obtains in wool, and shows clearly the necessity of observing the utmost cleanliness if a high price is to be attained. A fleece containing an excessive quantity of extraneous material, as straw or burrs, is included in the "reject" class which sells considerably lower than the first grades. The spirit of emulation which is created amongst members of associations, to produce the highest type of wool, in itself makes grading a valuable and beneficial practice. Besides, purchasers can recognize more readily the character of graded wool and its real value in manufacture, and are assured of securing a uniform product.

In order to take advantage of the benefits of grading and at the same time of the facilities of disposing of large quantities of wool in a co-operative fashion, sheep-raisers in many districts have banded themselves together in associations. Organizations of this character have now been formed in every province, and in many instances cover a very extensive area. Approximately a million pounds of wool were classified for them by the experts of the department. Little difficulty obtained in disposing to advantage of the graded product, which was sold through auctions devised and controlled solely by members of the associations. It is estimated that the grading enhanced the price to the producers about 4 cents per pound, which alone should constitute ample evidence of the effectiveness of this course.

EGGS.

Canadian eggs have found favour on the British market, as is apparent from the many favourable reports received and the enhanced price which the Canadian product

has commanded in comparison with that of the United States. Some difficulty has occurred through the fact that large quantities of United States eggs have been repacked in Canada for export, and sold in Canadian cases. Last year an arrangement was made with the Customs Department whereby it was required that all packages containing foreign eggs coming into Canada and intended for export, should be branded with the name of the country in which they originated. The regulations governing this matter may have to be made more stringent, in order to adequately safeguard the interests of the Canadian product on the export market.

THE CO-OPERATIVE ORGANIZATION OF PRODUCERS.

As has been intimated last year, the work of the department in this connection has now been extended to the western provinces. Last fall Mr. T. A. Benson, who had been in charge of the movement in Prince Edward Island, since its inception, was transferred to Alberta. Mr. R. J. Allen, a graduate of the Ontario Agricultural College, was secured for the work in Manitoba, while Mr. J. H. Hare, previously associated with the egg trade improvement work has given general supervision of co-operative organization as connected with the marketing of eggs and poultry.

In Prince Edward Island, a general consolidation of the movement has taken place. A central candling station has been opened up in Charlottetown by the Producers' Association, and arrangements completed such that practically all the product of the local associations passes through this depot. This has resulted in a much more uniform article being placed on the market, and has given the members generally a feeling of greater confidence in the undertaking. As an indication of the solidarity of the movement in this province, it may be pointed out that, during the two months previous to the holding of the annual meeting in March, collateral to the extent of some $10,000 had been subscribed by the members, with the view of placing the business on a more substantial basis.

In Ontario and Quebec, while no decided attempt has taken place to organize any number of new associations, the old associations have increased their membership considerably, and the value of the product marketed has been more than doubled. This is due not only to an increase in production but, as well, to the increased price obtainable for the improved quality of the goods marketed. In this connection, special reference might be made to the activity of a number of local units which have become affiliated under the name of the Lansdowne Farmers' Association and which last year marketed eggs and poultry to the value of over $14,000.

THE EGG TRADE IMPROVEMENT CAMPAIGN.

The adoption of definite standards for Canadian eggs by the Canadian Produce Association in January, 1915, gave this work a decided impetus. Previously while a "loss off" system of buying eggs had come into quite general use throughout a considerable portion of the Dominion, the adoption of a system of "quality payment" had been seriously handicapped through lack of any definite or generally recognized standards. Although actually accepted by the trade in the eastern provinces, the produce firms in the province of Alberta were the first to really apply these standards in a practical manner. The lead taken by Alberta was shortly followed by

Saskatchewan and, while not definitely put in force by the Winnipeg Produce Association in purchasing direct from producers, the standards were used in making inspections of carload lots intended for interprovincial trade.

Last year, for the first time in the history of the Dominion, fresh-gathered eggs were shipped in carlot quantities from Western Canada to the eastern provinces. Owing to the fact that the trend of trade previously had been entirely in the other direction, it required some time to establish a feeling of confidence on the part of eastern buyers in the western product. A medium of assistance in this connection was extended by the department through the location of an officer, temporarily, in Winnipeg, who, at the request of the Winnipeg Produce Association, gave a statement of grading on any lots of eggs intended for shipment. By so doing, the movement of eggs from the producing centres of the Central West was greatly facilitated, and the department was instrumental, early in the summer, in assisting in the movement of a large quantity of eggs to the eastern provinces. These, otherwise, would have been thrown on the Chicago market or left in the hands of local receivers, to the serious impediment of the poultry industry in the Prairie Provinces.

THE INTELLIGENCE SERVICE.

This being a new and somewhat unique undertaking, some time has been required in its organization. A definite programme, however, is steadily being rounded into shape, and officers have already been located at the leading market centres. In addition to the information furnished from this source, reporting upon conditions from country points has now been begun. A large amount of statistical and market data are being regularly received at the office, and it is expected that, within a very short time, the issuing of printed market reports will be commenced. This feature of the work is in charge of Mr. A. P. Westervelt, formerly Director of the Live Stock Branch, Ontario Department of Agriculture.

THE SALE OF FROZEN AND CANNED BEEF TO THE BRITISH WAR OFFICE.

Following an investigation of the conditions obtaining last fall as regards the export outlet for fresh and tinned beef, it became evident that the department was in a position to render material assistance in the development of our meat trade, through a representation of the claims of Canada to the British War Office. During the fall months, a great proportion of the Canadian supply of cutter and canner cattle finds its way to market. During the same period and before the closing in of winter, large numbers of grass cattle, both in the East and in the West, are offered for sale. Owing to the shortage of shipping space and to the fact that little connection had, as yet, been established for our beef and beef products on the British market, it became clear that, unless some definite action were taken, a serious glut would be occasioned, with consequent low prices to the producer. It is true that the American market has remained open to our stock, but the finding of an outlet through that channel, unless the product be sold as dressed beef, does not help Canada to realize the full return either to the producers, on the one hand, or on the other, upon the investment of capital and labour in our packing-houses and railways.

Steps were, therefore, immediately taken toward an improvement of this situation and, through the Acting High Commissioner for Canada in London, communication was entered into with the British War Office. As a result of the representations which were made, an initial sale of in the neighbourhood of 6,000,000 pounds of canned corned beef was speedily completed. Following the joint contract, the packers individually have been able to obtain additional sales of this and related products. As an immediate result of our action, the price to the farmers for cutter and canner cattle was held very steady and firm throughout the fall.

While the tender offered through the department by our packers in connection with the sale of fresh frozen beef was not accepted, we were able to secure the recognition by the British Board of Trade of the supplies which could be obtained from this country. As a direct result of the correspondence, there have been allotted to Canadian packers a number of refrigerator steamers for the transportation of cargoes, the sale of which was effected by the packers during the fall and winter. The outlet for the beef thus obtained has relieved the congestion which existed, and has given promise of a very strong market during the approaching season.

INVESTIGATION OF THE BRITISH MARKET.

Following upon the work already undertaken, I instructed the Assistant Live Stock Commissioner in December last to visit England and France, partly with the view of investigating the market for Canadian meat products in these two countries, and partly with the object of improving the connection of Canada with those charged with the purchase of supplies for the British Government and for the allied armies. During the trip, Mr. Arkell was able to obtain a reasonably accurate conception of the opportunity which exists of securing a satisfactory and profitable outlet for our produce. His review of the situation will be found in the current issue of the Agricultural War Book. I am happy to be able to state that his report indicates that the practicability of finding a remunerative market in Great Britain and France rests upon a very secure foundation.

While in London, through the good offices of the Acting High Commissioner, he had interviews with the Director of Contracts for the British Army; the Chairman of the Committee charged with the purchase of frozen beef for the British and allied Governments, and with the member of the Board of Trade having direction of the shipping space commandeered for the carriage of meats and other food products. These interviews assisted in initiating further business for Canada and in providing a basis of understanding which, no doubt, will prove an effective help in securing sale for this year's product.

DOMINION EXPERIMENTAL FARMS AND STATIONS.

Another active year is to be recorded in the operations of this branch. The regular lines of experimental work have been carried on at all the fully-equipped Farms and Stations.

Greater emphasis has been laid upon certain features of the work, and preparations made to study them in a more complete and accurate manner. Among these

lines may be instanced the qualitative and quantitative study of commercial fertilizers. Field work in this connection is being carried on at several of the eastern Farms and Stations.

Plant pathology laboratories have been established at Fredericton, N.B., and at Charlottetown, P.E.I. These are in charge of qualified men, who will devote their energies to the study of the plant diseases found in those provinces, and in the provinces of Nova Scotia and Quebec.

With a view to ascertaining the possibilities of producing fibre flax with profit in Canada, a preliminary investigation was carried on during 1915. Fibre of good quality was obtained from flax grown on the Central Farm and by certain growers in western Ontario. Preparations have been made for a wide test of the possibilities of this industry.

During the year the Division of Extension and Publicity and the Division of Illustration Stations have been thoroughly organized. The former division takes charge of the exhibition work carried on by the Experimental Farms system and also uses many other means of making the work of the Farms more widely known. It has already done excellent work in both these directions. On the Illustration Stations the plan of work mapped out was put into operation successfully and much interest has already been shown by the farmers living near.

On the newer Stations, the introduction of these has been going on as rapidly as the land can be got into condition and the necessary buildings erected. Delays under the latter head have again hampered the work, especially with live stock.

Small areas have been added to the Experimental Stations at Charlottetown, P.E.I., Lennoxville, Que., and Rosthern, Sask.

An Experimental Farm site has been chosen at Kapuskasing, Ont., and one at Spirit Lake, Que., both in connection with the internment camps located at those points. Preparatory work in clearing and draining is being done by the interned prisoners of war.

During the year the following publications have been issued or are in the press:—

The Annual Report of the Experimental Farms for 1914-15.

In the Regular Series—

No. 86.—The Cultivation and Improvement of the Apple in Canada, by W. T. Macoun.

In the Second Series of Bulletins—

No. 24.—Plant Diseases of Southern Ontario, by W. A. McCubbin.
No. 25.—Tobacco Growing in Canada, by F. Charlan.
No. 26.—Bees and How to Keep Them, by F. W. L. Sladen.

Circulars issued—

No. 10.—The Late Blight and Rot of Potatoes, by Paul A. Murphy.
No. 11.—The Black Leg Disease of Potatoes, by Paul A. Murphy.

Pamphlets issued—

No. 5.—Asparagus, Celery and Onion Culture, Revised edition.

Numbers 2, 3 and 4 of "Seasonable Hints" were issued. Large editions of this pamphlet, and, indeed, of all Experimental Farm publications, are now needed, owing to the great expansion of the mailing lists.

In connection with the exhibition work, the number of exhibition circulars has been increased materially, and new editions of many of those issued last year have been prepared.

In March there was received at the Central Farm, the horse "Anmer," a gift from His Majesty to the Government of Canada.

EXPERIMENTAL STATION, CHARLOTTETOWN, P.E.I.

Spring opened late in Prince Edward Island, and seeding of cereals was not completed until the end of the first week in June. Ample rainfall and good growing weather brought crops on rapidly. The hay crop was heavy except on low-lying land. The yields of cereals were among the best in many years. On the Experimental Station, they averaged the highest of any year since its organization. Potatoes were considerably below the normal crop. Roots were an average yield. Fall pastures were good, and live stock went into the stable for wintering in good condition.

Experimental steer and lamb feeding was carried on at the Station during the winter. Good prices for the finished animals were realized in March.

During the year a poultry administration building and a 100-hen poultry house were erected. A plant pathology building was also put up and will be used as headquarters for the officer studying diseases affecting plants in Prince Edward Island.

An area of about five acres was added to the Experimental Station under a five-year lease with option of purchase.

EXPERIMENTAL STATION, FREDERICTON, N.B.

The winter of 1914-15 was comparatively mild, but the following spring was late. Almost no sowing was done in April, and wet weather in May delayed main seeding operations until the latter part of that month. June and July were also very wet, and many low-lying areas were drowned out. August was unfavourable for haying and harvesting, and but little grain was cut that month.

The hay harvest was finished in September, and the grain crops cut, under good weather conditions. The yield of hay was fair and grain gave a good crop. Corn gave a small yield owing to the wet, cool season. Potatoes were considerably below average.

Pasture was abundant throughout the summer, and fall operations were carried on under most favourable conditions.

An implement shed, a bee building, two colony poultry houses and a poultry administration building were built during the year.

EXPERIMENTAL FARM, NAPPAN, N.S.

Spring was late, with much wet weather, and seeding was greatly delayed. Hay was a heavy crop, though there was some difficulty experienced in saving it. Grain harvesting was finished in October. The yields of cereals were fair. Corn was a light crop, and potatoes a good one.

Some 150 interned prisoners of war were set at work on this Farm, on August 25, at clearing and breaking new land. The number was afterwards increased to

200. After the clearing was finished they were employed putting in a new water system.

An extension to the horse barn was made, a new sheep barn built, and the farm buildings painted. A large amount of general repair work was done to the older buildings.

Experimental feeding of steers was carried on during the winter, and a good price was obtained this spring.

EXPERIMENTAL STATION, KENTVILLE, N.S.

Seeding was late owing to a cool and wet spring. The first good weather for farm work was the first week of June, when the main seeding was done, except on light, high land which had been sown the previous month. Hay was a heavy crop, but harvesting it was slow owing to lack of bright weather, and much of the crop was damaged.

Cereals yielded less than 1914. Potatoes were a light crop in many locations, especially where planted late. The apple crop was also light.

Owing to the heavy hay crop, more live stock than usual has been wintered. Experimental feeding of steers was carried on at the Station. The finished steers were sold in March, and a good margin of profit shown.

No building operations of importance were carried on at this Station.

EXPERIMENTAL STATION, STE. ANNE DE LA POCATIERE, QUE.

The spring was very cold, and all growth was retarded by some two weeks.

Haying was completed July 21, at the Station and the crop was very light. Grain crops were good. Fodder corn gave an excellent yield as did roots also.

A large amount of tile draining and fencing was done during the season.

An implement shed, granary, root cellar, poultry administration building and a poultry house were built.

EXPERIMENTAL STATION, LENNOXVILLE, QUE.

Preparatory work was commenced during the year, and some field crops grown and variety tests carried on. A large amount of tile draining and fencing was accomplished. Delay in erection of buildings prevented live stock work being taken up beyond the experimental feeding of steers and lambs.

EXPERIMENTAL STATION, CAP ROUGE, QUE.

Very little work was done on the land during April, but nearly all sowing and planting were finished by June 1. The season was a favourable one. Hay was only a fair crop but of excellent quality. Cereal crops gave good yields. Fall work was favoured by a long period of good weather.

A considerable amount of fencing, draining and road making was done. A new 100-ton silo was put up, and a wagon shed, brooder house, and a 100-hen poultry house built, as well as some alterations and repairs made.

EXPERIMENTAL FARM, BRANDON, MAN.

Farming operations were general by April 9, and seeding was well on toward completion by the close of the month.

The weather remained somewhat cool until August when a hot, dry period hastened ripening, and cutting was general by the 12th. Yield and quality of cereals were good. Fodder corn was a poor crop owing to cool weather in June and July. Potatoes were fairly good. Field roots yielded well. Work on the land continued until November 7, when frost stopped the ploughs. A poultry administration building and a colony poultry house were erected and some painting of the farm buildings done.

EXPERIMENTAL STATION, MORDEN, MAN.

Preparatory work was carried on at this new Station under the supervision of a foreman manager. Field crops were grown and orchards and other plantations set out. During the winter experimental steer feeding has been carried on and a flock of sheep placed on the Station this spring.

The Assistant in Horticulture at Brandon has been transferred to Morden to take charge of that line of work.

No Station buildings have yet been erected at Morden.

EXPERIMENTAL FARM, INDIAN HEAD, SASK.

Seeding commenced on April 1. May, June and July were cool, with a fair amount of rainfall. Hay was a light crop. August weather hastened ripening, and about 80 per cent of cereal crops was in stook by the close of the month. Threshing was delayed by unfavourable weather in September, but was very generally completed by the end of October; wheat on fallow averaged about 30 bushels per acre, and on stubble about 18 bushels.

A poultry administration building, bee building, two colony houses, and a brooder house were built this year.

EXPERIMENTAL STATION, ROSTHERN, SASK.

Seeding was well advanced by the end of April. April, May and June were very dry, with severe frosts during the latter month; the hay crop was very poor as a result. Small fruits were injured and some sorts of vegetables killed. Rain in July benefited the grain crops, roots, and vegetables.

Grain harvest was completed in August. Wheat gave 18 bushels per acre, oats 30 bushels, and barley 24 bushels. The yields throughout the district were below the average. Potatoes were a very small crop, and fodder corn a failure.

A considerable amount of fall ploughing has been done.

Steers have been put under feeding test this winter, and sheep breeding experiments are under way.

EXPERIMENTAL STATION, SCOTT, SASK.

Seeding was general by April 13. Germination was good and growth satisfactory. Hay was a good crop and high August temperatures hastened ripening of

cereals. The highest yield of wheat on the Station was 54.6 bushels, grown on well-worked summer-fallow, packed after sowing. Oats were a good crop, barley only medium, potatoes and roots gave an average yield. Little fall ploughing was done in the district, owing to the time taken up by harvesting, and the hard, dry condition of the soil.

A flock of sheep was placed on the Station for experimental breeding work.

EXPERIMENTAL STATION, LETHBRIDGE, ALTA.

Seeding began about April 8, and was well on toward completion by the end of the month. Rainfall was ample during May and June, and growth was excellent. Alfalfa cutting was general by July 1, and the crop was a heavy one.

August was favourable to ripening the grains, and cutting was well advanced by the end of the month. Yields of cereals were good and in some cases very high. The potato crop was fair. Field roots were an average in yield. Less fall ploughing than usual was done.

As in previous year, experiments were carried on in duplicate, one set on irrigated land, the other under dry-farming conditions. The ample rainfall of last season lessened very materially the amount of irrigation required.

Feeding experiments with steers and lambs have been carried on during the winter.

A bee building was put up at this Station.

EXPERIMENTAL STATION, LACOMBE, ALTA.

Seeding commenced April 10, under good conditions as to preparation of land and abundance of moisture. Growth was rapid. Pastures were excellent and grass-fed live stock kept in first-class condition. Clover hay gave the heaviest crop in the history of the Station. Alfalfa was a fairly good crop. Yields of grain were remarkably high, reports up to 70 bushels per acre being received.

A piggery was built this season at Lacombe.

EXPERIMENTAL STATION, SUMMERLAND, B.C.

Preparatory work was continued at this Station. Some field crops were grown, and orchards were set out. A considerable amount of breaking and grading was done. The pipe-line from the municipal water-works to the Station was laid and a large quantity of flumming put up, leading from this main line.

None of the permanent buildings has yet been built on the Station.

EXPERIMENTAL FARM, AGASSIZ, B.C.

The growing season opened favourably, with sufficient rainfall and good weather for sowing. The hay crop was heavy as was also the return from grains. Fodder corn gave a heavy yield, of good quality. Potatoes were a fair crop, as were also mangels. Turnips were injured by aphis.

The usual experimental work was carried on with live stock, special attention being paid to the experimental feeding of swine.

A sheep barn, piggery, and a poultry administration building were erected, and an additional silo put up.

EXPERIMENTAL STATION, INVERMERE, B.C.

Ample and timely rainfall reduced the amount of irrigation required in this district. Yields of clover and alfalfa were heavy, both under dry-farming conditions and under irrigation. Yields of grain were good. Potatoes were a heavy crop, as were all garden vegetables.

A poultry house and a bee building were built.

EXPERIMENTAL STATION, SIDNEY, B.C.

The laying out of the areas for the various lines of work on this Station was continued and satisfactory progress made. Additional orchards and ornamental plantations have been set out, roads made, fencing put up, and draining done. Field crops of cereals and forage crops were grown and variety tests of fruits and vegetables made. Hay and grains all gave returns above the average. Small fruits gave good crops. Husking and ensilage corn did well. The potato harvest was, in general, light. Yields of vegetables were good.

Preparation of land for fall sowing was hindered by dry weather.

A poultry administration building and a bee house were erected.

SUBSTATIONS.

Experimental work was continued at Forts Vermilion, Smith, Resolution, and Providence, and at Grouard and Grande Prairie, in Alberta. In British Columbia, Mr. Thos. A. Sharpe continued experimental work on his farm. At Minto Bridge, Yukon Territory, some tests were made, and it is hoped to extend these during the coming year.

Making allowance for the climatic extremes of many of these localities, and the difficulties under which experimental work must necessarily be conducted at such remote points, the results obtained are most valuable and speak well for the interest taken by the experimenters engaged.

Field Crops of the Dominion.

A combination of favourable circumstances resulted in the grain harvest of 1915 being the greatest ever recorded in Canada. The factors referred to were:—

(1) the large amount of fall ploughing done in 1914;
(2) the excellent wintering of the fall wheat crop;
(3) the prospects of high prices and the appeals for greater production leading to increased acreage being sown; and
(4) the favourable growing and harvesting conditions of 1915.

The total estimated value of the field crops of Canada in 1915 is $797,669,500.

The acreage yield and value of the principal field crops are tabulated below from data obtained from the Census and Statistics Monthly:—

AREAS and Estimates of Yield and Value of Field Crops, 1915.

Crop.	Area.	Yield per Acre.	Total Yield.	Weight per Measured Bushel.	Average Price per Bushel.	Total Value.
	Acres.	Bush.	Bush.	Lb.	$ cts	$
Fall wheat	1,208,700	29·41	35,551,600	59·71	0 90	32,091,500
Spring wheat	11,777,700	28·93	340,752,000	60·31	0 83	280,567,900
All wheat	12,986,400	28·98	376,303,600	60·19	0 83	312,569,400
Oats	11,365,000	45·76	520,103,000	36·61	0 34	176,894,700
Barley	1,509,350	35·33	53,331,300	48·26	0 50	26,704,700
Rye	112,300	21·32	2,394,100	56·32	0 79	1,890,900
Peas	196,210	17·73	3,478,850	60·74	1 66	5,730,700
Beans	43,310	16·70	723,400	59·61	3 05	2,206,800
Buckwheat	343,800	22·88	7,865,900	48·02	0 75	5,913,000
Mixed grains	466,800	37·54	17,523,100	44·98	0 57	10,034,700
Flax	806,600	13·18	10,628,000	55·28	1 50	15,965,000
Corn for husking	253,300	56·72	14,368,000	56·32	0 71	10,243,000
Potatoes	478,600	130·81	62,604,000	.....	0 57	34,964,000
Turnips, mangels, etc.	172,700	372·21	64,281,000	.....	0 26	16,749,000
		Tons.	Tons.		Per ton.	
Hay and clover	7,875,000	1·39	10,953,000	.....	14 22	155,807,000
Fodder corn	343,400	10·00	3,429,870	.....	4 96	16,980,100
Sugar beets	18,000	7·83	141,000	.....	5 50	775,500
Alfalfa	92,685	2·83	261,955	.....	12 98	3,402,000

The following table gives the numbers of the principal classes of live stock in the Dominion for the years 1911-15, inclusive:—

NUMBER of Farm Live Stock in the Dominion, 1911-15.

Live Stock	1911.	1912	1913.	1914.	1915
	No.	No.	No.	No.	No.
Canada:					
Horses	2,595,912	2,692,357	2,856,048	2,917,738	[illegible]
Milch cows	2,591,179	2,604,488	2,740,434	2,673,285	[illegible]
Other cattle	3,939,257	3,827,373	3,915,687	3,863,531	[illegible]
Sheep	2,175,302	2,082,381	2,128,531	2,005,044	[illegible]
Swine	3,610,428	3,477,310	3,348,326	3,441,251	[illegible]

DIVISION OF CHEMISTRY.

The purely investigational work of this division has been rather severely interfered with during the past year, owing to the enlistment of several members of the Chemical staff for military service overseas. This temporary deferment in certain lines of research is to be regretted, but under the circumstances was unavoidable for it was found impossible to obtain, at short notice and for temporary employment, capable men to take the place of those who had gone to the front.

Every effort has been made with the reduced staff to keep up what might be termed the routine work of the laboratory and to satisfy the ever-increasing demands

of farmers for chemical assistance. Though it has not been possible to prevent a rather large accumulation of work, both chemical and clerical, the laboratory records show that a great deal of very useful work, for widely distant parts of the Dominion, has been accomplished.

The correspondence of the division continues to increase, clearly indicating a growing and ever keener appreciation of the value of chemical knowledge as applied to agriculture.

During the year, 4,393 agricultural samples have been received and entered for examination. These include samples collected in connection with investigations carried on by the division and those forwarded by the Meat Inspection Division, but by far the greater number have been sent in by farmers. The corresponding number of samples received the previous year (1914-15) was 3,829.

The work in connection with the chemical and microscopical examination of samples submitted by the Meat Inspection Division, Health of Animals Branch, has been continued. These samples collected at the various packing houses in Canada include preserved meats, lards, colouring matters, preservatives, spices and condiments, evaporated apples, etc., and numbered, during the past year 1,180. In the preceding year 662 samples were examined.

Very considerable progress has been made in the examination of the soils from the several irrigation tracts in Alberta. The chief object of this investigation has been to ascertain the suitability of the areas in question for farming under irrigation, and this has called more especially for a determination of the "alkali" where such has been found. In the reclassification by the officers of the Department of the Interior of the areas under examination, the reports from this division have been of the greatest assistance.

The influence of soil and climatic conditions on the composition of wheat has again been studied, wheat from the same stock being sown on the Farms and Stations of the Experimental Farm and the harvested grain analyzed. It has been demonstrated that seasonal conditions may profoundly modify the gluten content, a moderately dry soil and fairly high temperatures during the period in which the kernel is filling out being conducive to a hard berry of first quality.

The work with sugar beets has again shown the suitability of soil and climatic conditions in many widely distant points in the Dominion for the production of sugar beets for factory purposes. These results are of particular interest at the present time when so many inquiries are being received as to the possibilities of Canada as a sugar-producing country.

The investigation to determine the feasibility of preparing a nitro-potassic fertilizer by a process of drying and grinding Atlantic coast seaweed has been concluded. During the brief period of a factory operations, approximately 50 tons of seaweed fertilizer were prorduced from the experimental plant in Nova Scotia. It now remains to establish, through a comprehensive scheme of field experiments arranged for the year 1916, the fertilizing value of the material.

The ever-increasing demand for information on the nature and use of fertilizers necessitated the employment of expert assistance to undertake the supervision of investigational work in this connection and to deal with correspondence, etc., on the

subject. Such assistance has been procured, and the division is accordingly extending its experimental work with fertilizers on several of the Experimental Farms and Stations. It will also be able to answer more promptly the large number of inquiries that are constantly being sent in regarding manures and fertilizers and the question generally of the up-keep and increase of soil fertility.

The widespread interest at the present time in the question of "liming" as a means of increasing the soil's productiveness has rendered desirable the analysis of many limestones sent by farmers and Provincial Governments for valuation. Limestones are variable as to composition, but it is evident from the results obtained that rock of excellent quality and quite suitable for the manufacture or preparation of crushed limestone or for burning to quicklime, occurs in many parts of Canada.

The examination of waters from farm homesteads continues as an important branch of the division's activities. Much has been done in impressing upon our farmers the importance of pure water, but the results obtained in the Farm laboratories indicate that the campaign against the use of waters from polluted wells must not yet be abandoned.

The Division of Field Husbandry.

The scope of the work of this division as relating to all Experimental Farms and Stations for the past four years includes:—

(1) Studies in the methods of culture and curing of field crops.

(2) Investigations of the relative merits of different crop rotations.

(3) Determinations of the costs of growing field crops under regular farm conditions.

(4) Tests of the influence of size and character of cultural implements on cost of crop production.

(5) Comparisons (in a limited way) of varieties of grain and forage crops as food producers.

(6) Experiments to show the value of underdrainage and irrigation.

The division at the Central Experimental Farm, Ottawa, is hampered in its work due to the fact that suitable land is not available for carrying on several lines of the experimental work that should naturally be included. However, besides providing supplies of grain and fodder for the up-keep of the live stock on the Farm, the following experimental work was conducted during the year.

Weather Conditions and Crop Yields.

The season of 1915 was characterized by an early seeding and a wet harvest. Spring seeding was in progress on April 21 and was continued uninterrupted until finished on the 29th of April. The temperatures, lower than usual during the month of May, retarded the growth of grain which had made a promising start. Corn planting, too, was delayed, on account of the cool weather, until the end of the month. The forepart of June was dry, and during the month the first cut of hay was taken. In July, corn, roots, and grain made good growth, but the latter was harvested with difficulty in August when the heaviest rainfall in years for that month was recorded. On September 26 severe winds damaged the corn crop, making the harvest tedious.

more especially where the corn was allowed to grow too thickly. The weather continued fine throughout the month of October, providing a favourable opportunity for the harvesting of roots and potatoes and the finishing of autumn ploughing.

COST OF PRODUCTION OF FIELD CROPS.

In the following table is summarized the yields and costs of production of mangels, corn, oats, and hay:—

Cost of Production of Field Crops, Central Farm, 1915.

Crop.	Area.	Yield per Acre.		Cost to Produce.		
				Per Acre.	Per Ton.	Per Bush.
	Acres.	Tons.	Bush.	$ cts.	$ cts.	cts.
Mangels	1·00	21·87	72·91	33 90	1 55	4·65
Ensilage corn	32·3	16·58	.....	23 99	1 45	.....
Oats	38 5	.....	69·4	69 17	.....	19 39
Oat straw	38·5	1·19	.....	.....	2 28	.....
Hay	30·0	3·67	.....	18·34	5 00	.....

ROTATION OF CROPS.

The most important investigation work at present in progress at the Central Farm is the testing of rotations considered suitable for live-stock farming. Thirteen rotations varying in duration and treatment are now permanently located which are being studied, keeping in mind the following points of merit:—

(1) Their ability to supply different crops in the proper proportions for certain needs.
(2) Their power to keep weeds in check.
(3) Their comparative profit.
(4) Their effect on the fertility of the soil.

Rotation "A" (five years' duration).—Hoed crop, manured; grain, seeded down with clovers and grass; clover hay, top dressed with manure in autumn; timothy hay, field ploughed in August, top worked and ribbed up in October; grain, seeded down with red clover to be ploughed under the following spring when the succeeding hoed crop is corn.

Rotation "B" (five years' duration).—Hoed crop, manured; grain, seeded down with clovers and grass, seeds top dressed with manure in autumn; clover hay, ploughed in autumn; grain seeded down with clovers and grass; clover hay.

Rotation "C" (four years' duration).—Hoed crop, manured; grain, seeded down with clover and grass; clover hay; timothy hay, field ploughed in August, top worked and ribbed up in October.

Rotation "D" (three years' duration).—Hoed crop, manured; grain, seeded down with clovers and grass; clover hay.

Soiling Crop, Rotation "R" (three years' duration).—Corn for early fall feed, manured; peas and oats to cut green, seeded down with clovers and grass; clover hay, to cut green.

Some characteristics of the above solutions desirable under almost any conditions, are as follows:—

(1) Grain fields are always seeded down with clover, even though it be used only as a fertilizer, as in the case of the fifth year of rotation "A."

(2) Grass and clover seedings are heavy. Increased crops of hay and rare failures of a catch have justified them.

(3) Hoed crops form a large proportion of every rotation. An attempt to farm a small area without a hoed crop was not successful. Weeds could not readily be kept in check.

(4) No field is left in hay for more than two years. Our records show that the second crop almost always costs more than the first per ton, and that succeeding crops are very liable to be grown at a loss.

(5) Barnyard manure is applied frequently in comparatively small quantities, rather than at long intervals in large quantities.

The following record shows the comparison of the chief items in connection with these rotations:—

Cost, Returns and Net Profits of Rotations, "A," "B," "C," "D," and "R."

Rotation.	Cost to operate per acre.	Value of returns per acre.	Profit. per acre.
	$ cts	$ cts.	$ cts.
A (five years' duration)	18 22	23 01	4 79
B (five years' duration)	17 78	18 75	97
C (four years' duration)	18 10	22 44	4 34
D (three years' duration)	20 44	23 47	3 03
R (three years' duration)	21 57	28 79	7 22

SHALLOW PLOUGHING AND SUBSOILING VERSUS DEEP PLOUGHING.

Two four-year rotations differing only in the preparation of the sod land for roots or corn as mentioned above are used, but the results of twelve years have failed to show any decided advantage in favour of either method. In the past year the results were in favour of shallow ploughing, while the average for the period of twelve years has shown a slight advantage in favour of the deep ploughing.

COMMERCIAL FERTILIZERS AS A PART SUBSTITUTE FOR BARNYARD MANURE.

This experiment, started in 1913, was designed to supply information concerning the relative fertilizing merits of:—

(1) No manure of any kind, but pastured one year in four.
(2) Barnyard manure.
(3) Complete commercial fertilizer.
(4) Barnyard manure, together with commercial fertilizer.

The results show a distinct advantage in barnyard manure over commercial fertilizer alone for this soil, but point to the possibility of combining the two to good advantage when barnyard manure is scarce or high in price.

Animal Husbandry Division.

The Animal Husbandry Division of the Experimental Farms has made a satisfactory expansion in the scope of its work during the past fiscal year. The lines of work which fall to this division are the laying out and superintending of feeding, breeding, purchasing, management, and housing of farm animals; the manufacturing and marketing of their products, together with all experimental and demonstrational work connected therewith on the Central Experimental Farm, and, in consultation with the Director of the Experimental Farms and the Superintendants of branch Farms, the supervision of similar work on branch Farms and Stations throughout Canada.

LIVE STOCK ON THE CENTRAL FARM.

The horses on this Farm are all of draught type excepting the necessary drivers. Amongst the draught horses are a number of excellently bred Clydesdale mares which are used not only for general farm work but also for breeding purposes. Although in the past grave difficulties have been met in breeding operations with horses, yet the future of this work is more promising. Feeding experiments, both with the working horses and breeding stock, are being continued on the Central Farm in conjunction with somewhat similar work on the branch Farms.

The extremely important work with beef cattle is of necessity still curtailed for lack of sufficient housing accommodation. However, a few choice young steers are being finished for baby beef, not only to demonstrate the profits from such work, but also that these animals may be used for demonstrational purposes in lectures to the many visitors.

The herds of dairy cattle have progressed rapidly during the past year. Good representatives may be found of four breeds, namely, Ayrshires, French Canadians, Holsteins, and Jerseys, as well as a few choice grades of the Ayrshire and Holstein breeds. The milk production per cow has amongst all breeds increased largely during the past year. Some splendid records have been made by animals which were entered both in the Record of Performance and Record of Merit, all breeds showing a marked increase in maximum production and maximum profits. Many pure-bred animals from the herds are annually sold for a moderate price to breeders throughout Canada, it being the object in the making of these sales to place this stock where the greatest amount of good may be done. A large number of experiments in the feeding, breeding, and handling of dairy cattle have been conducted during the past year. An increasing number of experiments with equipment, such as milking machines, have been conducted. Special attention has also been paid to the feeding and rearing of young stock, and a large number of calf-feeding experiments have been conducted.

Experimental work along the lines of dairy manufacturing is continuing to hold a very prominent place in the work of this division. The manufacturing, curing, and marketing of many dairy products, such as butter, fancy cheeses, Cheddar cheeses, and the like, has received all attention possible under the existing circumstances. The gross receipts from this department during the past year have

exceeded $10,000. With the construction of a more commodious dairy, the amount of experimental work and the gross output may be increased. From this division also has been distributed a large amount of information regarding dairying, as well as free forms for the keeping of cow records, to thousands of Canadian farmers.

The sheep on the Central Experimental Farm have again shown a marked improvement both as to numbers, quality, condition, and profits. Only two breeds, namely, Shropshires and Leicesters, are represented on this Farm. However, from these flocks a number of excellent breeding animals have been distributed to branch Farms or sold to breeders throughout Eastern Canada. A number of experiments in the feeding and finishing of sheep for the market have again been conducted. It might be worthy of mention that lambs finished in winter on the Central Experimental Farm have for the past two years been sold on the Toronto market at the top market price. In March, 1916, lambs finished on this Farm created a new record price of $13.75 per hundredweight, live weight, on the Toronto market.

Swine raising has again demonstrated itself as one of the good paying branches in this division. Three breeds are represented in this herd, namely, Yorkshire, Berkshire, and Tamworth. A large number of pure-bred animals has been sold during the past year for breeding purposes. Feeding experiments have been conducted both under summer, fall, and winter conditions. These experiments have dealt with more economical feeding, the choosing of superior foodstuffs both for raising on the farm and to be purchased on the markets, the saving of labour in the feeding of the hogs, and other such economic problems.

ASSISTANCE TO BRANCH FARMS.

The Dominion Animal Husbandman has visited the branch Farms and Stations throughout Canada and continued to be of assistance to the superintendents of these Farms. In conjunction with the superintendents many new lines of live-stock work have been undertaken. In addition, a large number of sketch plans of buildings proposed for these branch Farms and Stations have been made by this division, which plans have been approved of and completed by the Department of Public Works. By such means of co-operation, building work on the branch Farms has been facilitated. It may be again recorded that the modern buildings on the Dominion Experimental Farms are being copied, in their essentials at least, by a large number of both the small and extensive live-stock breeders throughout Canada.

MISCELLANEOUS.

The regular correspondence of this division has again increased more than 25 per cent over the previous year. Every possible assistance has been given inquiring farmers along the lines of maintenance of live stock, feeds, feeding, methods of breeding, and general management for improved health and increased profits.

A most gratifying result of the work in this division is the increasing interest of the Canadian farmer in the improving of his live-stock buildings. This division has continued to assist Canadian farmers in every way possible toward the planning of new or the remodelling of old farm buildings. Over 840 blue-prints of modern

farm structures to suit the individual needs of farmers inquiring, as well as photographs and brief specifications, have been distributed during the past year.

Members of the staff of this division have judged at a large number of agricultural fairs and have addressed meetings throughout Eastern Canada during the year ended March 31, 1916.

Horticultural Division.

There are four main features or subdivisions of the work of the Horticultural Division at Ottawa, pomology, vegetable gardening, ornamental gardening, and plant breeding, to each of which an expert devotes most of his time, the Dominion Horticulturist supervising the whole and paying especial attention to the work ot the branch Farms and Stations.

The crops of fruit at the Central Farm, while not as good as in some years, were fair on the whole. Owing to the large number of varieties of apples under test, there is always a considerable proportion which bear, so that there never has been a failure of this crop in recent years. The information which has been accumulated on varieties of apples is very great. Yields have been kept annually of individual trees since 1898, so that it is possible to tell a prospective orchardist what trees of certain varieties are likely to bear at different ages. Marked differences have been found in the yields of trees of the same variety of the same age and planted the same year, and experiments are in progress to determine if these characteristics are repeated when the trees are propagated. Young trees propagated from such stock were fruiting in 1915, and each year's test will make this experiment more valuable. It has been possible as a result of experiments covering a long period to recommend a reliable list of varieties for places where the climate is somewhat similar to that at Ottawa. As an example, there is the McIntosh apple which has been under test at Ottawa since 1888. The value of this fine Canadian variety was soon demonstrated, and for many years the planting of it has been strongly advocated.

Plums.—It has been shown by the experience of the past twenty-seven years that the European or Domestica plums and the Japanese plums are not satisfactory over that large part of Canada which has a winter climate very similar to that at Ottawa. Occasionally trees will bear a good crop of fruit, but on the whole they are not a commercial success. In 1915, as in most other years, there was a good crop of the improved native and American varieties of plums, although the yield was not as good as usual owing to late spring frosts. For many years these varieties have been recommended instead of the European which, when planted, rarely bear fruit. The Cheney plum, one of the improved varieties of the Canadian wild species and one which has for a long time been recommended by the Horticultural Division, is grown very successfully over a wide area. The Omaha, a hybrid between the Japanese and American plums, is one of the most promising of the newer varieties, having the hardiness of the American and the firmness of the Japanese. As among the wild native plums there are some which ripen early, especial attention is being paid to these, and some very promising ones fruited in 1915.

Pears.—Much expense must have been saved to prospective pear growers in the colder parts of Canada by the reports on experiments with varieties of pears at the Central Farm. In the original orchard most of the well-known varieties of good quality were tried, but none of them, with the exception of the Flemish Beauty, ever reached a fruiting age, and the Flemish Beauty never bore many crops before it succumbed. There was a good, but limited, crop of the Flemish Beauty in 1915, and this is the only good pear which, from the experiments at Ottawa, is likely to succeed where the climate is as cold as it is here. A few Russian varieties have proved hardy and practically immune from blight, but they are of inferior quality. They are, however, being used for crossing with the less hardy sorts.

Cherries.—Cherries, like pears, do not do well at Ottawa. Some varieties are hardier than others, among the hardiest being the Russian sorts, but, as a rule, the flower buds are killed in winter, hence they cannot be recommended for commercial planting in cold climates. There was a light crop in 1915. A wild Japanese bush cherry gives promise of being a valuable addition to the list of fruits for the colder sections. There was a fair crop of these in 1915.

Other fruits.—Much information has been obtained in regard to grapes, raspberries, currants, gooseberries, and strawberries at Ottawa, and the lists of varieties furnished and the methods of cultivation recommended have been published from time to time in the reports and bulletins. There was a good crop of all of these in 1915.

Vegetables.—The experiments in vegetables are of interest to many people, and it is planned to make them as useful as possible. In 1915 an overhead irrigation system covering 7 acres was installed at Ottawa for the purpose of determining what crops were benefited by artificial watering of this kind and whether it would prove economical for the average market gardener to install such a system. Owing to the wet weather in most of the growing season, the vegetable crops did not need any artificial watering, but at the time of setting out a strawberry plantation there was very dry weather when, without the irrigation, a large proportion of the plants would doubtless have died, but as a result of having the water, practically a perfect stand was secured.

As a result of the campaign for "Patriotism and Production" at the meetings of which the Dominion Horticulturist advocated the growing of more vegetables in backyards, a bulletin on "The Home Vegetable Garden" was published, for which there were many applications, a second edition becoming necessary in a few weeks after the publication of the first.

Ornamental Gardening.—Since the war began a marked increase has been observed in the number of letters received by the Horticultural Division in which the writers desire information in regard to the improvement of their home grounds. The war and the cessation of speculating in real estate have evidently turned the attention of Canadians more to the value of home life and attractive home surroundings than formerly, and many questions are asked in regard to the laying out of grounds and the varieties and care of ornamental plants. In 1915 a bulletin on "The Cultivation

of Hardy Roses" was published for which there has been a great demand. The trial grounds for flowers at the Central Experimental Farm are of much interest to visitors.

Plant Breeding.—The work in plant breeding was continued in 1915, crossings being made with fruits, vegetables, and flowers. Hardier and better fruits; earlier and better vegetables; and more beautiful flowers are needed in Canada, and some good material has already been obtained. Seedlings of Northern Spy and McIntosh apples having different seasons from their parents, but with their characteristic flavour, are among some of the most promising new fruits.

BRANCH FARMS AND STATIONS.

In last year's report an outline was given of the horticultural work in progress at the branch Farms and Stations and most of this work was continued in 1915, but in addition an extensive series of cultural experiments with vegetables at these Farms and Stations to cover a period of from three to five years was planned and experiments begun.

The Dominion Horticulturist visited most of the Farms and Stations twice in 1915 to discuss horticultural matters with the superintendents. Special mention should be made of the work at some of the newer Experimental Stations in 1915.

At Lennoxville, Que., orchards of 22 acres in extent, consisting of apples, pears, plums, and cherries were planted in 1915. One apple orchard was planned for cultural work only, a comprehensive series of plots having been laid out. Experiments were also begun with small fruits, vegetables, and flowers.

At the internment camps at Spirit Lake, Que., and Kapuskasing, Ont., tests were made with vegetables and flowers, and some small fruits were set out to obtain information as soon as possible which will prove useful to intending settlers to Northern Ontario. In the autumn of 1915 trees of hardy varieties of apples and bush fruits were sent to these camps which may ultimately be Experimental Stations.

The first horticultural work was done at the new Experimental Station at Morden, Man., in 1915, when hedges for windbreaks were planted. It is proposed to plant orchards and small fruit plantations and carry on other horticultural work there in 1916.

Owing to lack of water in the spring of 1915, the irrigation system not having been installed, practically no planting was done at the new Experimental Station at Summerland, B.C., but early in the summer the water was available and a fair crop of beans was harvested on part of the horticultural area. Plans for extensive plantings of fruit trees have been made for 1916.

CEREAL DIVISION.

The season of 1915 is noteworthy for the high yields per acre and the general good quality of the grain produced throughout the Dominion. While some sections were adversely affected, it is impossible to expect equal and uniform production in a country like Canada, possessing as it does, such widely differing meteorological conditions. In the Maritime Provinces, a cold wet spring retarded seeding and

growth, a setback which fair weather in July and August could not overcome. The yields throughout these provinces were below those of 1914, while the grain was only of fair quality, due to the lateness of seeding. Exceptional weather conditions prevailed throughout the western provinces, resulting in a very high yield per acre of grain of splendid quality. Although a few districts through the lack of moisture, did not produce as abundantly as the major part of the provinces, on the whole the season was extraordinarily successful. In Ontario and Quebec early seeding was generally possible. A rather cold period prevailed in May and the beginning of June, accompanied by drought, but was followed by warm rains and pleasant weather. Judging from the growing grain, a maximum crop would have been produced, but unfortunately heavy rains, with hot, damp weather intervening, prevailed throughout the harvest season. The resulting damage was large, much grain being ruined, while that which was threshed was dark in colour and often low in vitality.

NEW CEREAL BUILDING.

Through fire of accidental origin, the main building of the division was destroyed by fire at the beginning of the harvest season. This building was used for the threshing and storage of seed grain, the selection and preparation of seed for distribution, and the general work of the division. With it, the implements and machinery of the division were lost, including the flour-mill and the stationary grain cleaner but recently installed. In addition to the pecuniary loss of equipment, seed of recent crosses and selections, as well as all seed of varieties under test held in reserve was also destroyed. This latter loss can scarcely be estimated. Immediate steps were taken for the erection of another, and it is now a pleasure to record that a larger and more commodious building has just been completed and placed at the disposal of the division.

MARQUIS WHEAT.

This wheat still stands as the champion of hard red wheat in America. Last autumn, at Denver, Colorado, for the fifth successive time, it won the world's championship. That this wheat still maintains its extraordinary record, is proof of its enduring quality, and justifies the universal popularity accorded to it in the western provinces.

NEW VARIETIES AND SELECTIONS.

Since the introduction of Prelude and Pioneer wheats, continued favourable reports have shown their ability to succeed under the climatic conditions for which they were chosen. Prelude, on account of its extreme earliness and splendid quality, has become increasingly popular in the northern districts, and as the settlement of these areas progresses, the use of this variety will become more general. Other new wheats designed to meet the peculiar needs of certain districts are now under test at our different Stations, while the work of selection from extensive crosses of the best of the present varieties is receiving the most careful attention.

Unfortunately the main stock of seed of the new oats was lost in the fire, and this work is of necessity retarded for a time.

Many recent crosses in barley, peas, beans, and flax are being studied. It is expected, especially with the hull-less varieties of barley, that out of the promising material now on hand, some new varieties of striking value will be introduced.

THE MILLING AND BAKING WORK.

This work has had to be discontinued for a time, owing to the loss of the flour-mill and the enlistment of the milling and baking assistant for oversea service. The investigations along these lines now include not only the tests of new varieties and promising strains of wheat grown under different conditions, but also researches into commercial flours, bread improvers, etc. These investigations will be taken up again as soon as practicable.

DISTRIBUTION OF SEED GRAIN AND POTATOES.

The usual distribution of small lots of improved seed has been somewhat limited this last season, owing to the necessarily restricted space available for the work of the division while the erection of the new building was in progress. The insistence of the farmers on having seed of the highest quality is one of the most pleasing features of the work, showing that a keen appreciation of good seed is steadily increasing. The distribution seems to have its greatest value in the comparatively new settlements in the western provinces, numerous favourable reports giving evidence of its benefit there. Before the close of the present distribution, over thirty-six hundred samples of grain and twelve hundred samples of potatoes will have been sent out to various applicants throughout Canada

Division of Botany.

DESTRUCTIVE INSECT AND PEST ACT WORK.

The potato inspection begun the year before was continued, so far as the Dominion was concerned, till about July, 1915. In view of the fact that the disease, powdery scab, had not been specially studied on the continent of America, there was carried out in Eastern Canada a series of uniform experiments, which clearly showed that the disease is only of minor importance, but naturally, where it has not yet occurred, it is desirable to use every precaution to prevent it and most vigorous and systematic efforts have been undertaken to stamp out the disease where present.

NEW FIELD LABORATORIES ESTABLISHED.

Two new field laboratories have been established, one in Fredericton, N.B., in charge of Mr. G. C. Cunningham, B.S.A.; and one in Charlottetown, P.E.I., in charge of Mr. Paul A. Murphy, G.A. These officers, by demonstrations, field experiments, lectures, and other means, are engaged in educating farmers to practise disease control. This work, although in its initial stages, has shown most satisfactory results; since, at a time when good seed potatoes are scarce, there are, as a result, enough sources of disease-free crops available to start the coming season with sound seed.

Co-operation with farmers has been established throughout Prince Edward Island, Nova Scotia, Quebec, and New Brunswick; and it is confidently expected that powdery scab and many other potato diseases will shortly be greatly reduced or practically eliminated.

The field laboratories are not only devoting their time to potatoes, but also to any other plant pathological problem of economic importance.

ST. CATHARINES FIELD LABORATORY.

The work of this laboratory is making steady progress. Some years ago a very troublesome disease of peaches—peach canker—appeared, and spread rapidly throughout the peninsula. It is gratifying to be able to report that the assistant-in-charge, Mr. W. A. McCubbin, M.A., has now demonstrated that this disease can be controlled. Considerable research and experimental work are involved in the location of the outbreak of white pine blister rust recently observed in this locality. During the year a very useful treatise on "Fruit Tree Diseases" has been prepared by Mr McCubbin, and was issued as Bulletin No. 24 (2nd series). During the winter the course in plant pathological instruction inaugurated last year was again held.

CENTRAL LABORATORY.

Among other special studies taken up during the year were preliminary investigations into the culture of medicinal and drug plants in Canada, and into the growing of flax for fibre. Mr. John Adams, M.A., Assistant Dominion Botanist, who has had some twenty years of close connection with the flax industry of Ireland, has devoted much time and attention to this work during the year.

During 1915 a number of plots of flax were grown on the Central Experimental Farm, seed for this purpose having been obtained from Holland through the Dominion Botanist and the good offices of Dr. Ritzema-Bos, by special permission of the Dutch Government.

In the month of September several samples of flax were collected at various points in southwestern Ontario and sent to Ottawa to be retted. Others were sent in from the Prairie Provinces by the superintendents of the different branch Farms. Sixteen samples were received from southwestern Ontario and fifty-three from the Prairie Provinces. Of the latter, four were from Brandon, Man.; nine from Morden, Man.; seventeen from Indian Head, Sask.; ten from Scott, Sask.; three from Rosthern, Sask.; nine from Lethbridge, Alta.; and one from Lacombe, Alta. One sample was grown at Ground Hog River Provincial Experimental Farm in Northern Ontario.

Sixteen samples were also retted for Dr. C. E. Saunders, Dominion Cerealist. These were grown on the Experimental Farms at Cap Rouge, Ste. Anne de la Pocatière, Fredericton, Indian Head, Rosthern, Lacombe, Lethbridge, and Agassiz.

All the samples were pulled, except one which was cut. With one exception, all were dried before being sent to Ottawa.

The bulk of the seeds appeared to have been ripe or nearly so at the time of pulling, but this was more difficult to determine after the bundles were dried.

For the purpose of retting the various samples, small ponds about three feet deep were excavated in the corner of the Botanic Gardens near the Rideau canal.

The flax was immersed in these, and the ponds were several times pumped dry, and refilled with fresh water from the canal.

The time of immersion varied from three to nine days. At the time of immersion of a considerable number of the samples, the water was becoming too cold for satisfactory retting. The flax, after removal from the pond, was spread on the grass for several days to dry. It was then sent to the mill of the Ontario Flax Co., Ltd., at Parkhill, Ont., to be scutched and valued. The scutched fibre was arranged in six classes according to merit, class 1 being the best quality. None of the flax grown at the Central Experimental Farm was valued as class 1, and only one sample was placed in class 2. Nine of the samples grown in southwestern Ontario were valued as class 1, and four were placed in class 2.

Of the samples from the Prairie Provinces none were placed in class 1, and only two in class 2.

Of the sixteen samples tested for Dr. Saunders two were placed in class 1, namely, those from Agassiz, B.C. None of the others attained the rank of second class.

The ordinary routine work of the division is ever increasing, and, from the close contact with farmers and their special problems, beneficial results are becoming more and more apparent.

A new phase of work has been added during the year, viz., the preparation of cultures for the inoculation of leguminous crops with nitrogen-fixing bacteria.

The Bee Division.

The work of the Bee Division has continued to develop rapidly during the past year. A much-needed apicultural building, 27½ feet by 32 feet, with 2,100 square feet of floor space, has been erected at the Central Experimental Farm, and was occupied on February 11, 1916. The building contains a laboratory, offices and three bee cellars. The gathering of the work into one building with the apiary near at hand will greatly facilitate the experiments that are being conducted with bees.

The apiary work at the branch Farms and Stations, thirteen of which now keep bees, has been further organized during the year. The apiarist inspected each apiary during the warm weather in 1915, and gave advice to the superintendents and to the men in charge of the bees. Returns have been prepared showing the comparative profitableness of the bees at each Farm or Station, and steps have been taken to systematize means for the control, by manipulation, of swarming which is one of the principal causes preventing larger returns in the majority of apiaries in Canada.

Progress has been made in the study of the principal honey-producing plants of Canada, the conditions affecting the abundance of their yield, the duration of the yield and the quality of the honey. Some of this work has been done in temporary out-apiaries in the open country where the particular honey plants it has been found desirable to study are abundant. These temporary apiaries have been established in connection with the Central Farm and two of the branch Farms. It is expected that the information obtained will prove of considerable value to bee-keepers, showing them where bees may be kept with greater profit.

The formation of collections of specimens of the honey plants of Canada, and samples of the honeys produced by them has been commenced.

Experiments in the breeding of bees have been continued, and useful data have been secured.

The subject of humidity in the bee cellar during the winter has been investigated in detail, and it has been found that in cellars where the relative humidity is low, such as are to be often met with in dwelling houses in the interior of Canada, a heavy mortality of bees may occur under certain conditions. Experiments have been made to ascertain the effect of supplying moisture when deficient, and also how such a deficiency may be best prevented.

Since some of the conditions for important features of bee investigation work are not met with in the Experimental Farm apiaries, co-operative experiments have been started with several enlightened bee-keepers in different places.

Division of Forage Plants.

The scope of the work of the Division of Forage Plants is gradually being extended, new lines being added each year. The most important new work taken up by the division this year is experiments with growing of field roots for seed.

VARIETY TESTS.

Since 1913, practically all varieties of Indian corn, mangels, turnips, carrots and sugar beets, grown at the Farms and Stations of the Experimental Farms system, have been tested in duplicate plots. By this arrangement the influence of soil variation on the yield of different varieties has been almost eliminated. As a consequence, the possible errors in the determination of the yielding capacity of the different varieties, as resulting from lack of soil uniformity in the experimental field, have been greatly reduced. Since the inauguration of the duplicate-plot system more uniform results have been obtained and more definite information secured as to the relative yielding capacity of different varieties in different parts of the Dominion.

Beginning with 1914, the value of varieties of field roots, tested at the Central Experimental Farm, Ottawa, has been calculated from the yield per acre and dry-matter content, taken together. By this arrangement the Division of Forage Plants has been able to come to a much clearer understanding of the real food value of the various varieties tested, and has, as a consequence, been able to advise farmers, more positively, to grow certain varieties in preference to others.

BREEDING WORK.

The breeding work with clovers, alfalfa, and grasses, started in 1912, is progressing very satisfactorily.

As mentioned in last year's report, the breeding work with clovers and alfalfa, so far under way, is being largely done with the object of producing hardy varieties, i.e., varieties able to come through the most severe Canadian winters without being wholly or partially killed. Breeding for hardiness is being based upon the assumption that what is called a variety of any clover or alfalfa is in reality a mixture of

a very great number of strains distinct not only as to morphological characters but also with regard to biological qualities. It consists chiefly in elimination of all tender strains and in propagation of the hardy ones, the result being ultimately the creation of a "variety" composed of hardy strains only.

The importance of using hardy varieties has been clearly demonstrated as far as red clover is concerned, experiments at Ottawa having shown that there exists a most pronounced relation between hardiness and yield. The use of seed of hardy varieties of forage plants therefore means higher yields, i.e., larger revenue from the farm and increased stock-carrying capacity of a given acreage.

The breeding work for hardiness has also furnished proofs of the correctness of the statement, often made from theoretical grounds, that home-grown seed produces better crops than seed imported from somewhere else.

The breeding work with grasses, having for its main object the production of high-yielding and uniform varieties, is progressing satisfactorily. Most advanced is the work with timothy and Western rye grass, of which perfectly uniform varieties, superior to those now available commercially, are expected to be ready for comparative tests in a year or two.

FIELD ROOT SEED GROWING.

In order to secure data bearing on the possibility of growing field root seed profitably in Canada, experiments were undertaken at the Central Farm, Ottawa; Experimental Station, Charlottetown, P.E.I.; Experimental Station, Kentville, N.S.; Experimental Station, Fredericton, N.B.; Experimental Station, Lennoxville, Que.; and Experimental Farm, Agassiz, B.C. The results of the experiments not only show that seed of good quality can be raised in Canada, but they also indicate, most decidedly, that seed growing, if taken up by experienced men, familiar with field roots, may prove a very profitable business.

COLLECTIONS.

The herbarium material of grasses and other plants necessary for the proper understanding of the nature and value of natural pastures, and of hay made from wild grasses and kindred plants, is steadily being increased. Unfortunately, the division suffered a considerable loss this year, a large number of grasses and duplicates, intended to be used for exchange purposes, being destroyed in the fire which laid the cereal building in ashes. In this fire large quantities of various cultivated forage plants, collected for exhibition purposes, were also lost.

RANGE INVESTIGATIONS.

In co-operation with officers of the Forestry Branch, Department of Interior, Ottawa, the Dominion Agrostologist investigated the cause of cattle poisoning in the Crowsnest Forest Reserve, special attention being paid to the grazing areas in the Livingstone valley and the Porcupine hills. The investigation revealed that the only plant really dangerous to cattle in the districts mentioned, is the larkspur. A report, accordingly, was prepared and submitted to the Forestry Commissioner, Department of Interior, Ottawa.

PUBLICATIONS ISSUED OR WITH THE PRINTERS.

Exhibition circulars—

No. 10. Awnless Brome Grass versus Western Rye Grass, by M. O. Malte, Ph.D. (revise).
14. Sweet Clover, by M. O. Malte, Ph.D. (revise).
55. Alfalfa Growing in Eastern Canada, by M. O. Malte, Ph.D.
57. Pitting Roots, by F. S. Browne, B.S.A.
58. Mangel Seed Growing, by F. S. Browne, B.S.A.

Division of Illustration Stations.

In April, 1915, farms for illustration purposes were selected and work started at the following places:—

In Saskatchewan.—Assiniboia, Cabri, Herbert, Kindersley, Maple Creek, Pambrum, Prelate and Shaunavon.

In Alberta.—Bow Island, Carmangay, Empress, Foremost, Grassy Lake, Jenner, Macleod, Magrath, Manyberries, Medicine Hat, Milk River, Pincher Creek and Whitla.

In July additional Stations were selected at the following places, work to commence in 1916:—

In Saskatchewan.—Moosejaw, Weyburn, Radville, Biggar and Lloydminster.

In Alberta.—Munson and High River.

It was also decided to establish Illustration Stations in the province of Quebec, and during the months of September and October selections were made at the following places, work to commence in 1916:—

Nomininguc, Aubrey, St. Julie de Vercheres, Drummondville, Stanbridge East, Rimouski, St. Gedeon, New Carlisle and Lac a la Tortue.

The work of the Division of Illustration Stations has been carried on with the following objects in view:—

To put into operation under the supervision of the division, on farms owned and operated by farmers:—

(*a*) Methods of cultivation and crop rotations which have been found to give the best results on the Dominion Experimental Farms and Stations.

(*b*) To grow the grain, grasses and other crops most suitable to each particular soil and locality and at a minimum cost.

During the past year the following rotations were started at the various Illustration Stations, 45 acres being selected on each farm for the work.

ROTATIONS.

One-Year Rotation.

Wheat continuously.

Two-Year Rotation.

Summer-fallow	Wheat alternately
Wheat	Summer-fallow alternately.

Two-Year Rotation.

Corn	Wheat alternately
Wheat	Corn alternately.

Three-Year Rotation.

Summer-fallow	Wheat	Oats
Wheat	Oats	Summer-fallow
Oats	Summer-fallow	Wheat.

FODDER CROPS.

Alfalfa.—On a number of the Illustration Stations, alfalfa was grown for the following purposes:—

(*a*) To produce the heaviest crop at a minimum cost.
(*b*) Growing it in rows, two feet apart and growing it broadcast.
(*c*) To produce a hardy strain of alfalfa seed.
(*d*) To ascertain the amount of fertility added or taken from the soil.

Western rye grass.—Western rye grass was also sown, chiefly for fodder, on each of the Illustration Stations, and it, as well as alfalfa, made a very strong growth during the whole season.

Corn.—As mixed-farming is being encouraged, the growing of fodder crops will be necessary, hence varieties of corn considered suitable to the several districts are being grown. It is also felt that such a crop could be grown profitably and at the same time the soil cultivated sufficiently so as to eradicate weeds, conserve moisture, and minimize summer-fallowing. To illustrate this corn and wheat were grown alternately

MEETINGS.

During the year seventeen meetings were held in Ontario, Quebec, Alberta, and Saskatchewan. The meetings in Alberta and Saskatchewan were held in connection with the illustration work, the work being fully described by Mr. John Fixter; also several addresses were given by Mr. J. F. Irwin, Assistant to the Supervisor for the Western Provinces, Mr. W. H. Fairfield, Superintendent of Experimental Station at Lethbridge, Alta., and Mr. M. J. Tinline, Acting Superintendent of Experimental Station at Scott, Sask. Many inquiries were made by those in attendance, and much interest taken in the work, particularly in the different rotations and methods of cultivation.

Mr. J. F. Irwin gave interesting addresses on "The Value of Selection" and the "Cleaning of Seed Grain." He laid particular stress on the advisability of sowing the variety of grain suitable to the soil and conditions of the district. Mr. Irwin also gave statistics showing the marked difference in yields in favour of large plump seed, compared with the medium plump seed, also unclean seed.

Mr. W. H. Fairfield took part in the meetings held in Alberta and gave results of experiments in summer-fallowing. From experience Mr. Fairfield found ploughing on an average of 8 inches deep to have given the best results, also working the summer-fallow as early in the season as possible.

Mr. M. J. Tinline gave results of experiments in "Crop Rotation," "Soil Cultivation," and "Seed Selection." Much interest was taken in the discussions following the addresses.

The results of 1915 were most encouraging, as on the whole heavy crops and a good quality of grain were produced, thus placing at the disposal of the farmers a supply of good seed at reasonable prices. This was one of the main objects of the illustration work.

The growing crops were a source of much interest to the neighbourhoods surrounding the different Illustration Stations. Many inquiries were received regarding the methods of cultivation and the varieties of seed sown, which goes to show that farmers are gradually realizing the necessity of more thorough methods in cultivation and the value of sowing the best seed.

Division of Extension and Publicity.

Early in the spring of 1915 the Division of Extension and Publicity was formed under the Dominion Experimental Farms Branch, to continue and develop the publicity work begun and carried out during 1914 under the supervision of the Director of the Dominion Experimental Farms.

The excellent results which followed the placing of a Dominion Experimental Farms' Exhibit at some of the principal exhibitions held during 1914 confirmed past experience as to the educational value of carefully selected exhibits, and when planning the work for this year arrangements were made to attend 160 exhibitions and fairs in Canada; including a large number of the smaller fairs, for the benefit of the many thousands of farmers who seldom have an opportunity of visiting the larger exhibitions. Although for various reasons some of the exhibitions and fairs were cancelled by their respective managements, a Dominion Experimental Farms' Exhibit was shown at 145 places throughout the Dominion, beginning with the summer fairs in the Prairie Provinces about the middle of June and continuing until the close of the exhibition season towards the end of October.

By means of circular letters, correspondence with individuals, and attractive educational exhibits, wide publicity has this year been given to the Dominion Experimental Farms system, and attention has been specially directed to the locations of the branch Farms and Stations in every province with the object of having the farmers apply to those branch institutions nearest to them when seeking information or advice concerning their farm operations.

As a direct result of the work of this division, during 1915 applications were received from 54,870 persons who desired to have their names entered on the mailing list for the Farms' publications. There was also an increase very considerably above the normal in the number of letters from farmers asking for information on agricultural matters, the branch Farms and Stations, as well as the Central Farm, having been called upon to a greater extent than heretofore for practical advice on all lines of farm activity. In 1914 the Central Farm received 84,534 letters, an increase of forty-five over the previous year. During the past year 128,597 communications from all parts of the Dominion were received at the Central Farm. This

increase of more than 44,000 was made up largely of inquiries from farmers who through the publicity work of the past year had learned that they were free to apply to the Dominion Experimental Farms' staff of specially trained men for advice and suggestions or for information regarding the work of the Experimental Farms and Stations.

There are yet in Canada many thousands of people on the land who have never heard of these Experimental Farms. Every effort will be made through the various channels of publicity to reach these people, and to keep them informed of the results of investigations and experiments concerning which they may be more particularly interested.

Poultry Division.

THE WORK IN GENERAL.

The work of the Poultry Division this year has been one of development rather than of extension, though a certain number of new experiments have been undertaken.

It has been the aim to complete the equipment of the branch Farms that have been in operation, and with two or three exceptions these eleven farms are now capable of housing the 300 laying hens that are kept at each Farm, and of conducting the operations necessary on the poultry plant.

A start was made this year on two more farms—Sidney, B.C., and Ste Anne de la Pocatière, Que.

THE EXPERIMENTAL WORK.

While most of the experiments already under way in the division have been continued, considerable new work of an investigational nature has also been started. Among the new experiments might be mentioned: Cost of rearing different breeds, crossing in both hens and geese for table purposes, limited vs. farm range for growing turkeys, testing for brooding purposes, individual hovers, stove brooders and pipe brooders, the feeding of pituitary substances to increase egg production, etc.

THE BREEDING STOCK.

At the Central plant, Ottawa, the breeding stock of Rocks, Leghorns, and Wyandottes has been increased so that larger numbers of the varieties in which the experimental work is being conducted will be on hand. A number of other breeds are represented, but by only single pens. These are kept to illustrate the various popular breeds, and for crossing purposes.

In ducks there are three or four of the best egg and table breeds that are used to experiment on the production of eggs and meat. Several varieties of geese are experimented with for table purposes, and the crossing of the wild and domestic is being tested to better, if possible, the table qualities.

During the year turkeys were reared in semi-confinement. The results were very satisfactory. Over 40 per cent of those hatched were reared to maturity, and the average dressed weight of a number killed when 7 months old was over 16 pounds, one weighing as high as 19 pounds 2 ounces.

THE BUILDINGS AT THE CENTRAL PLANT.

Four permanent buildings have been erected during the year. A water fowl house, on the duck plant, a commercial laying house for 100 hens, and two farmer's poultry houses holding 100 hens each. These latter two houses are similar to the farmer's poultry houses that have been erected on the branch Farms, and which have proved quite satisfactory.

BRANCH FARMS.

Work has been started on two more branch Farms, Ste. Anne de la Pocatière, Que., and Sidney, C.B. At Ste. Anne an administration building, one farmer's poultry house, and several colony houses were built, 100 Wyandotte pullets installed, and hatching and rearing will be conducted there this spring. At Sidney an administration building, a brooder house, and several colony houses were put up during the fall and winter. No hatching will be done there this spring, but day-old chicks purchased and reared.

EQUIPMENT COMPLETED.

The buildings and equipment have been completed at most of the Farms that have prior to this year kept poultry. At Agassiz, B.C., an administration building was constructed, a permanent poultry house at Indian Head, Sask., an administration building at Brandon, Man. At Cap Rouge, Que., one farmer's poultry house and a pipe brooder house have been erected, and at Charlottetown an administration building and one farmer's poultry house were added to the plant.

TOBACCO DIVISION.

For tobacco growing, the season of 1915 was one of the most unfavourable in many years. Speaking generally, the weather was too cool, and frequent heavy cold rains kept the tobacco plantations from drying off, thereby inviting attacks from plant diseases.

In Ontario, as in the United States, "Root Rot" (*Thielavia basicola*) did considerable damage. This was especially noticeable on "White Burley" plantations which had already, for some years, shown signs of infection.

Fortunately, as far as Ontario was concerned, the yellow tobaccos of the Virginia type, kiln-dried, and grown generally on new and better drained land were almost free from "root rot" and, as a whole, gave a more abundant yield and of better quality than the preceding year. In some parts of southern Ontario these tobaccos are gradually taking the place of the "White Burleys," the growing of which is becoming more and more risky.

In Quebec, although the plantations were not attacked by root rot, the tobaccos suffered considerably from atmospheric conditions.

On the Station of St. Jacques l'Achigan and in the surrounding district the yields were below the average and except for the early varieties, the ripening was imperfect and the quality of the crop thereby lowered.

At the Farnham Station, of all the varieties grown in 1915, the "Big Ohio Sumatra" alone gave satisfactory yields.

This new variety of wrapper tobacco tried this year for the first time on a fairly large scale (two arpents) showed itself very resistant to those adverse conditions which so seriously affected the other tobaccos like the Comstock Spanish and Havana Seed Leaf, which had been considered as early, hardy, and perfectly acclimatized. They were, however, completely washed out, and gave leaves of remarkably dry tissue, without body or elasticity, but little suited to use as "binders." Naturally, the weight of crop of these "washed out" tobaccos was below the average.

The drying process was carried on with some difficulty owing to that danger of fermentation in the curing barn, to which such tobaccos are peculiarly liable.

The method of hot-air curing, tried at Farnham in 1914, was again used this year. It has been proved that, in a favourable year, one may obtain from an early crop of Virginia a certain proportion of yellow leaves. This proportion, however, will always be less than that obtained under similar conditions in southern Ontario. Moreover, the yield in weight is generally higher in Ontario than in Quebec. It should be added that, in Quebec, the season is shorter and tobaccos of a slow growth, and which should commence to yellow before harvesting, may not mature. Moreover the harvesting period (mid-September) has much colder nights than has southern Ontario, which makes temperature control difficult. Also, in Quebec there is always danger of frost after the end of August.

Definite results were obtained in the study of the use of charcoal heaters in curing White Burley. These permit of the reduction of the humidity in the curing barn and prevent the tobacco spoiling from too slow curing.

Experiments in the treating of tobaccos on the field were prevented by weather conditions.

Special attention was paid to attempts to produce a commercially satisfactory tobacco for a cigar filler. Several varieties of tobacco suitable for use as fillers can be easily grown in Quebec, and others in Ontario where they might be planted in those districts not specially devoted to White Burley or the yellow tobaccos.

Generally speaking, after fermentation in bulk, these tobaccos have proved to be much too heavy in texture, although their flavour was admitted to be good.

Inquiry was made as to the methods employed in southern Ohio in dealing with filler tobaccos of heavy texture, and these were applied to the varieties grown in Quebec. The resulting product was suited for use as a "filler," although there is yet room for improvement.

Some 3,250 samples of tobacco seed were sent out to growers during the winter.

HEALTH OF ANIMALS BRANCH.

Contagious Diseases Division.

A great deal of anxiety has been experienced during the past year owing to the continued outbreaks of foot-and-mouth disease in the United States. It has been necessary to exercise the utmost vigilance and enforce suitable restrictions to protect our live-stock interests.

In view of the importance of facilitating the shipments of British and French remounts from the United States, and appreciating fully the possibility of intro-

ducing infection by this means, special measures were taken to guard against this danger. A very large number of these horses have arrived in Canada during the past year and have been fed and rested under the supervision of my officers in special yards reserved for this purpose. The cars in which they have been conveyed have all been disinfected before loading, and as a further safeguard, hay and straw in these cars have been removed at the boundary line and burned. Foot baths have also been supplied when considered advisable for the disinfection of the horses' feet. It is very fortunate, indeed, that the prompt and energetic measures taken by my officers have so far prevented an epizootic in this country of one of the most serious contagious diseases of live stock. An outbreak of this disease would cost this country a vast sum of money to eradicate. It would result in an enormous wastage in live stock and would also cripple the live-stock industry for an unlimited period. It is therefore very gratifying to learn that the United States authorities are now confident that they have eradicated this troublesome disease, and I sincerely trust that they will not again experience another such outbreak.

I regret to say that it has also been necessary to prohibit the importation of cattle, sheep, and swine from the United Kingdom, owing to the existence of foot-and-mouth disease in that country. Fortunately, however, the outbreaks have not been extensive, and the British authorities have been able to deal with them expeditiously. I have quite recently received official information that the disease has now been eradicated, and I will, therefore, be prepared to consider issuing permits for these importations directly sufficient time has passed to confirm this statement.

The statistics for the year 1915-16, which will be found in the special report of the Veterinary Director General, indicate that the aggressive policy now pursued has resulted in the safe control of maladies which come under the operation of the Animal Contagious Diseases Act.

With the increased duties devolving upon my staff, due to the United States foot-and-mouth situation, there has been a very marked activity on the part of all my field and boundary officers. It is pleasing to find that these men have performed their work, even under very trying circumstances, with diligence and despatch.

I am very glad to report that it has not been necessary to destroy so many horses for glanders as during the previous year. This serious disease of horses, asses, and mules has given the department a great deal of trouble and anxiety during past years. It was very prevalent in Saskatchewan, and a special effort was made a few years ago to eradicate this malady in that province. Although this has not so far been possible, it is quite evident that the disease is now under full control, and there is reason to believe that in the near future glanders will not be more common in Saskatchewan than in any other part of the Dominion.

There were approximately two hundred and twenty-eight (228) horses slaughtered for this disease throughout Canada during the past year, one hundred and seventy-eight (178) of these being in the province of Saskatchewan.

Owing to the compensation policy followed by my department in controlling this malady, it has been necessary to exercise care and to enforce suitable regulations in connection with the importation of horse stock from outside our boundaries. Horses

entering this country from the United States are either detained at our quarantine stations along the boundary, and tested there, or they are tested at points of entry by officers appointed by the United States Federal authorities, whose charts the inspectors of my department are authorized to accept. The detection of glandered horses from time to time at the boundary has fully justified these precautionary measures.

I have to report that the very insidious and troublesome malady dourine still exists in the provinces of Alberta and Saskatchewan, more particularly in Alberta.

The infection of this disease was introduced into Alberta many years ago, and although all possible measures have been taken to eradicate it, this has not so far been possible. The department has, however, been able to control it and to prevent the extension of the infected area. This work has required very close attention, and it has been necessary to inspect before shipment every horse from any part of the infected area in Alberta and Saskatchewan. Range conditions have made it most difficult to deal with this malady.

It is indeed very fortunate that the research laboratory at Lethbridge was established a number of years ago. Dr. Watson, the pathologist in charge, with the facilities provided was able to perfect a system of diagnosis by the complement fixation test. Prior to the use of this test it was necessary to hold horses in quarantine for years, as the disease frequently assumes a very chronic form. It is not uncommon in these cases to find no symptoms whatever of the disease, although the affected animals readily transmit infection.

It is now possible, by testing the blood serum, which must be carefully collected, to detect horses affected with this malady, which from physical examination are apparently in perfect health. Very many thousand samples of serum have been tested at the Lethbridge laboratory. It is gratifying to report that there has been a marked decrease in the number of horses destroyed for this disease during the past year.

Mange in cattle and horses is still to be found to a limited extent throughout the Dominion. The outbreaks, however, with the exception of those in the mange area in Alberta and Saskatchewan, have been very few in number and in limited areas. My officers have not experienced any undue trouble in controlling and eradicating this disease in any part of the Dominion except the mange area There are, however, many difficulties to overcome in dealing with mange on the range. It is almost impossible to isolate effectively mangy animals, and the weather conditions also regulate to a large extent our dipping operations. It is not at all an uncommon occurrence to be unable to treat mangy cattle for weeks and sometimes months. It is not surprising, therefore, that my officers are still dealing with this disease in districts where such unfavourable conditions exist.

The Veterinary Director General's figures show, in spite of these difficulties, very favourable progress has been made in dealing with cattle mange. There has been a very marked decrease in the number of cattle found affected with this malady during the past year. The improvement is so obvious that I am considering the advisability of removing the mange restrictions from a portion of the mange area. This action is very desirable at any time it is justified. The mange area covers a

large territory and requires careful and systematic riding of the range by a large staff of range riders, who work directly under the direction of Veterinary Inspectors. As soon as this area is materially reduced it will be possible to make much better progress.

I am glad to find that the majority of stockmen are only too willing to follow the instructions of my officers, and the improvement which has taken place is largely due to their hearty co-operation.

Horse mange is still found largely in Saskatchewan, and while there has been as large a number of horses found affected throughout the Dominion as in the previous year, this is largely due to an outbreak in a limited territory in Saskatchewan. Fortunately the infection has not been widespread, and in many parts of the Dominion the disease has not been detected for many years.

Sheep scab has not been dealt with in any province except Manitoba. The disease was found in this province a year ago, and although all possible steps were taken to ascertain the source of infection, this was not determined. As the parasites producing this disease are known to survive very long periods in debris and in crevices in buildings or fence posts, it is reasonable to presume that reinfection occurred by this means. A special effort is being made to eradicate this disease, so that this country can be declared free from it.

My officers have been called upon to deal with outbreaks of hog cholera in each province excepting New Brunswick and Prince Edward Island. The number of hogs slaughtered, however, has been very much smaller than for many years. The recent changes in our policy in dealing with this disease have not yet been in force for a sufficient length of time to obtain reliable statistics with regard to the economy in the slaughter of hogs in eradicating these outbreaks. I am of the opinion, however, that if the regulations governing the feeding of swine upon garbage or swill are effectively enforced the number of outbreaks of this disease will be considerably lessened.

The treatment with serum by my officers of apparently healthy contact hogs on infected premises has already resulted in a material saving to the hog owner. There have been very few fatalities among the serum-treated hogs and they have all been fattened for the block successfully, and upon slaughter a very large percentage found to be fit for food purposes. The hogs have consequently netted the owner much more than he would have received from the department if the animals had been slaughtered as contacts at the same time as the diseased ones. It is also interesting to find that the holding of these hogs under quarantine for periods ranging up to three months has not resulted in fresh outbreaks of the disease.

The greatest care has, of course, been exercised by the inspectors in dealing with these cases. The premises are very thoroughly disinfected directly the diseased hogs have been slaughtered. I am of the opinion, therefore, that the department is quite justified in anticipating far better results in the future, in dealing with this troublesome malady, under this progressive policy.

Rabies has fortunately not been detected in any part of the Dominion except the province of Ontario. In this province it has been limited to small areas. Quite recently an outbreak was reported near the United States boundary in the county of

Welland, and in view of the danger of transmitting this disease to the human race, it was thought advisable to enforce a muzzling order covering one of the townships in this county. This action has had very satisfactory results, and the outbreak was promptly controlled. Although my inspectors were unable to find any definite evidence with regard to the origin of this outbreak, it is quite possible that the infection was brought over from United States territory, as this disease is known to exist in localities adjacent to the international boundary.

Outbreaks of anthrax have occasionally been reported in the provinces of Quebec and Ontario. These outbreaks, however, with very few exceptions, have occurred on old infected premises. It is quite evident that the protective vaccination, which is systematically practised on infected premises, is responsible for the limited number of these cases.

Blackquarter in young cattle continues to account for a large number of fatalities throughout the Dominion. This disease does not come under the operation of the Animal Contagious Diseases Act. The Department does, however, manufacture blackleg vaccine at the biological laboratory in this city, which is supplied at cost price to stock owners, upon request.

The problem of the control of bovine tuberculosis is unquestionably a most serious one. This disease is well known to be widely distributed throughout all civilized countries, and, generally speaking, stock owners are not yet prepared to co-operate with official bodies in the enforcement of any radical measures for its suppression.

While I am most anxious to follow a modern progressive policy in dealing with this disease, I fully appreciate the futility of endeavouring to enforce measures which would not meet with the hearty support of our stockmen. I have, therefore, followed the customary practice in so far as the testing of cattle is concerned and the supplying of tuberculin manufactured at our biological laboratory free of charge to veterinarians. There has been an increased demand for departmental tuberculin, a little over five thousand doses having been sent to veterinary practitioners upon the request of stockmen. Three hundred and fifty-three of the cattle tested with this tuberculin reacted and were permanently ear-marked by my officers. The inspectors of my department have, however, only tested eight hundred and five (805), and ninety-three (93) of these reacted, although during the previous year nearly three thousand more official tests were made.

The lack of interest shown by the stockmen in this connection is quite apparent when it is considered that although the department has for many years been prepared to take charge of herds with a view to the eradication of tuberculosis, for which no charge is made, there are at the present time not more than thirty herds under its supervision. This is the more surprising in view of the fact that no compulsory measures are taken in dealing with these herds. The owner is quite at liberty to keep reactors, provided they are constantly isolated, but the department insists upon supervising whatever disposal the owner may decide to make of these animals.

In view of the great economic and sanitary significance of bovine tuberculosis to the live-stock industry of this country, the Veterinary Director General and myself have given this question very serious thought. I fully realized, owing to the

fact that public sentiment is not favourable for the adoption of drastic legislation, that suitable control measures must be developed in a progressive way. As the owner's co-operation in this work is without doubt a very essential feature of this great task, it has been necessary to bear in mind the condition of public sentiment and information on this subject, when arriving at a decision for definite action. After thoroughly going into the whole matter with the Veterinary Director General it was finally decided in the year 1914 to recommend to Council the passing of an order providing assistance to municipalities for the eradication of tuberculosis in the dairy herds. I considered that such a measure would be beneficial to the public interests in many ways, especially as it is well known that this disease can be transmitted to the human race through the consumption of milk and meat from tuberculous animals. This order was passed in May, 1914, but so far my department has only had the opportunity of assisting one municipality. The city of Saskatoon, Sask., was the first official body to take advantage of this order. A request for assistance has quite recently been received from the city of Regina, and the Veterinary Director General is at present arranging for the first test of the cattle supplying milk to that city.

The order in question applies only to cities or towns having a population of not less than 5,000 persons. The department further requires the municipalities to respect certain conditions which are essential to satisfactory work in dealing with this troublesome disease. All reactors must be immediately separated from the healthy animals. The cattle are tested free of charge as frequently as necessary, and the department insists upon the immediate slaughter of all reactors which, in the opinion of the inspector, are distributing the germs of the disease through the milk, faeces, or sputum. This class of animals is an exceptionally dangerous source of infection, and the sooner they are destroyed the better for all concerned. Compensation is, however, paid to the owners at the rate of one-half the appraised value of the cow. This value is limited by the Act to $150 for pure-breds and $60 for grades. In view of the circumstances, however, this is a very liberal remuneration, especially so as in many cases lesions are localized, and it is possible to obtain a fair salvage from a good percentage of the carcasses. The salvage obtained from the carcasses of these animals is given to the owner in addition to compensation, provided the salvage and compensation together do not exceed the maximum value provided by the Act.

Reactors which are not in the opinion of the inspector suffering from a dangerous form of the disease can be either slaughtered immediately, prepared for the block, or kept on the premises, and the milk or cream which they produce pasteurized before being offered for sale.

The department only allows one-third the appraised value for all reactors which are slaughtered at the request of the owner. In these cases the salvage is much higher, and the owner, therefore, receives a very fair return for any of the animals which are destroyed.

In the city of Saskatoon there were tested under this order approximately 1,950 cattle for the first time and the percentage of reactors marked was a little over six. These results are very encouraging, and it is especially gratifying to know that the city authorities, and the dairymen, are well satisfied with the enforcement of the order.

I was glad to learn from the Veterinary Director General that he has received a communication from the city clerk, advising him that the city of Saskatoon appreciated the work of his branch. It is, therefore, evident that this order is a practical one and can be enforced without undue irritation and annoyance. Its more general enforcement which is sure to follow directly municipal authorities realize its true benefits will, I am satisfied, pave the way for some splendid work in the eradication of this disease.

The system of inspection of all foxes entering Prince Edward Island was changed early in the year in so far as our regulations now require that all foxes entering the island must be quarantined at Charlottetown only. Previous to the inauguration of this system owners could take their foxes to Charlottetown, Summerside, or Georgetown for thirty days' quarantine. It was, however, found advisable to eliminate the latter two points. There have been forty-six foxes brought on to the island during the past year, all having passed through the quarantine at Charlottetown. During this period no evidence of disease has been detected.

The pathologists in the laboratories at Agassiz, B.C., and Lethbridge, Alta., have been busily engaged in investigating the causes of diseases in their respective provinces, while the biological laboratory staff here has been occupied with the manufacture of vaccines, the analyses of disinfectants, and the examination of numerous specimens for diagnostic purposes.

The necessary repairs have been made to our quarantine buildings situated along the international boundary, but no new structures have been erected during the past year. It may, however, be advisable to erect accommodation in the near future at a few points where at present buildings are rented.

A good deal of work has, however, been accomplished at the Quebec Quarantine Station in connection with building good roads. This is the most important quarantine station in this country, as the majority of the most valuable animals from overseas undergo detention there. The department has, therefore, provided suitable sanitary accommodation, and as there is always a possibility of serious diseases being introduced, it is essential that no pains are spared in making this station modern in every respect.

Many of my officers have left important positions to serve their country in the European struggle, and I am proud to be able to say that Dr. Evans, of the Biological Laboratory staff here, has been awarded the Military Cross. The response to the call for recruits was so great that it threatened to disorganize the service. Much as I appreciate this sign of loyalty among my officers, it was nevertheless necessary, in view of the importance of enforcing suitable regulations for the protection of our live stock, to discourage the enlistment of those whose positions in the army could be suitably filled by individuals outside the service.

Meat and Canned Foods Division.

The increase in the work of this division, mentioned in my last report, has continued. This is due, no doubt, to the European war. The demands for meat foods were never so great as at the present time, in consequence of which the prices being paid to the producer are very attractive.

After a careful survey of the whole situation, it appears to me that the demand will continue, and that prices, if they change at all, will be inclined to go up rather than down.

The high price of bacon in England has caused our exports of that product to increase 50 per cent. This has caused a corresponding increase in the work of inspection in establishments operating under the provisions of the Meat and Canned Foods Act, which has been carried on by our regular staff. While our officers have been called upon to perform this extra amount of work without remuneration, they have done so without complaint, and in this way, while not in uniform at the front, they have done "their bit." Their loyalty and faithfulness in this time of stress is very much appreciated.

The killings for the year are approximately as follows:—

Cattle	538,000
Swine	2,355,000
Sheep	404,000
Total	3,297,000

The sanitary condition of the plants has been very fair in view of the volume of business. Much new equipment has been installed, and changes and alterations have been made with the object of better sanitation.

Many rulings have been made and decisions given in connection with the work, which have facilitated matters and prevented friction between our officers and the management of inspected establishments.

The prospects are that this branch will have another busy year, which will in all probability necessitate further appointments to the staff.

The fruit and vegetable canneries were not nearly so busy as in previous years, this being due, no doubt, to the surplus pack of the year previous. Sanitary conditions were well maintained, while the quality of the raw material and of the finished product were equal to those of former packs.

The condensed and evaporated milk factories were operated as usual, and maintained their previous good record for cleanliness and the manufacture of a high-class food product.

FRUIT BRANCH.

In order to keep in touch with the widely separated fruit-growing interests of the Dominion, the commissioner spent a good deal of his time in visiting the different districts. During the summer he took an extended trip to the West, interviewing the wholesale and retail dealers of the Prairie Provinces as to their needs. At Calgary he attended a three days' convention called by the Board of Trade for the purpose of discussing methods of increasing consumption, the cost of production and the cost of fruit to the consumer. Representatives of the grain growers' associations of the three Prairie Provinces, of the retail associations, Boards of Trade and consumers' leagues of the surrounding towns, and of the British Columbia Fruit Growers' Association, together with Government and railway officials, made this an

important convention. In British Columbia, accompanied by our Chief Fruit Inspector Clarke, Mr. Johnson visited the leading growers and fruit associations of the various fruit-growing districts, and also inspected the basket and box manufacturing establishments of New Westminster. He also investigated the growing and marketing methods in Washington and Oregon and had an opportunity of studying some of the up-to-date systems which they employ so successfully in bringing their fruit before the commercial world. At San Francisco he saw Canadian fruit in competition with that of other countries, and was assured on all sides that there was no better collection anywhere than that displayed by this Dominion; in fact, so artistic and original was the display that it attracted the universal admiration of the visitors to the exposition. The deciduous fruit districts of California and the Kansas City and Chicago markets were also visited.

Later in the season the commissioner spent some time in New York state, which is the largest producing state in the Union, and which corresponds very closely to Ontario. While the commissioner found many excellent packs in New York state, yet he was convinced that the Inspection and Sale Act had done more for Canadian growers than was generally understood, as it caused a uniformity of pack which did not exist in the United States.

Numerous trips were also made to the commercial fruit districts of Ontario, Quebec, and Nova Scotia. Mr. Johnson was pleased to find that in almost every district the fruit trade declared its confidence in the fruit inspectors, and expressed appreciation of the help given in the standardization of the pack. He found that, owing to the inauguration of inspection at the point of shipment, a spirit of harmony existed between the inspectors and the growers which it was impossible to obtain under any other system.

THE FRUIT SEASON.

The apple season of 1915 will be remembered as one of low production and poor quality. These features were not in evidence until the latter part of the summer, when very heavy rains throughout the country superinduced the development of apple scab and other fungous diseases.

In the province of Ontario there was a very heavy blossom, but even in June there was no expectation of a large crop. Later in the season an almost incessant rainfall not only reduced the crop of apples actually produced but also rendered the quality of those remaining on the trees very poor indeed.

British Columbia produced a crop slightly above average, with the quality very much reduced by scab.

The Ontario peach crop was the largest ever produced. Grapes were reduced by mildew to about 65 per cent of a standard crop. Pears and plums were light.

FAULTS IN PACKING SMALL FRUITS.

In 1914, the fruit inspectors in the large city markets had found numerous violations of the Inspection and Sale Act; baskets of berries were often only three-quarters full and sometimes little more than half full; fruit was put into these pack-

ages which was immature and utterly unfit for consumption; packages were overfaced in many instances. Complaints were made, at that time, by the consuming public and by the wholesale and retail trade.

With the opening of the small fruit season in June, 1915, it became obvious that immediate steps be taken to avoid a repetition of this condition, by impressing upon the growers of these fruits the necessity of improving their system of packing. Inspectors were therefore sent out to visit the growers during the packing season, and do what they could to improve conditions. They found that almost all the above faults were due to ignorance on the part of the growers, and after the latter had received a warning letter from Ottawa and instructions from the inspector, the situation immediately improved. In fact the improvement was so complete and rapid that the wholesale fruit trade freely admitted that the small fruit season of 1915 was one of the most successful they had experienced in many years.

FRUIT CROP REPORTS.

These were published on the first day of each month, between June and October, inclusive, and were compiled from information received from fruit growers in all parts of the country. They dealt with every phase of the industry, but were chiefly devoted to the condition of the various fruits in the principal producing districts.

The success which had attended the publication in 1914, on a small scale, of telegraphic reports, warranted an extension of that work. Arrangements were made early in the year with prominent fruit growers, both in Canada and the United States, provincial officials, fruit inspectors, Canadian trade commissioners, and others, to send in telegrams and letters to reach Ottawa every Tuesday and Friday morning commencing August 17. These messages were summarized, printed, and distributed by mail the same day they were received, and were sent to about 1,200 fruit growers and distributors—in fact to anyone who expressed a desire to receive them. The information distributed in this way included the following:—

1. Crop conditions in producing districts.
2. Quantities and varieties of fruits ready for shipment.
3. Destination of shipment.
4. Wholesale prices in leading Canadian and British markets.
5. Condition of fruit at points of distribution.
6. Weather conditions.
7. Dates of steamship sailings.
8. Quantities of fruit in storage.
9. Advice to shippers, general information, etc.

The publication of these reports was continued until March 31, when sixty-eight had been sent out. The system has proved very successful and has met with the greatest support on the part of the fruit growers. There is no doubt that when the value of such information becomes better known there will be a large increase in our mailing list.

The Fruit Branch is very fortunate in having the assistance of the Department of Trade and Commerce, through whose trade commissioners we are enabled to keep in close touch with the British markets.

In the autumn of 1915 the Department of Trade and Commerce created the office of Fruit Trade Commissioner for Great Britain, and appointed Mr. J. Forsyth Smith. Cables were sent direct to the Fruit Branch by Mr. Smith at frequent intervals after the beginning of the export fruit season, giving the sale price of all varieties of apples, and other information which could advantageously be embodied in the telegraphic reports.

The same system of crop reporting will be carried on next year, and a special effort made to give these reports more publicity and thereby widen their distribution. There are comparatively few fruit growers who know that such reports are published, and now that their usefulness is assured efforts will be made to encourage a demand for them.

INSPECTION OF BASKET FACTORIES.

Complaints were made by the fruit growers during 1913 and 1914 regarding the poor quality and lack of uniformity in fruit packages manufactured in Ontario. It was suggested at the Fourth Conference of Fruit Growers in 1914 that steps should be taken to remedy the situation. An officer of the Fruit Branch therefore visited, in March and in April, 1915, all the factories operating in Ontario. Much improvement resulted, and as the season developed it was apparent that the strength and quality of the packages were better than in any previous season.

The main faults have been: (1) lack of uniformity in the size of veneer used at different factories, (2) inadequate nailing, and (3) the use of poor veneer. These faults were all corrected and further inspection will insure the purchase of fruit packages suitable to requirements.

INSPECTION WORK.

Previous to the season of 1914-15, practically all the examinations under the Inspection and Sale Act, Part IX, were made at the export and distributing points. This system has been most satisfactory as long as the original purpose of the Act (inspection of fruit for export) remained the more important work of our inspectors. With the widening of markets in the West, however, and the growth of a demand for inspection of fruit intended for domestic sale, some change in the method of inspection was necessary, as it was not practicable to enlarge our staff sufficiently to cover the innumerable consuming points. For many years the growers had been agitating for "inspection at point of shipment." They claimed that if their fruit was the only practicable method of protecting both the grower and the consumer rather than after it had travelled hundreds or thousands of miles and was beyond their control. After careful consideration the Fruit Commissioner decided that this was the only practicable method of protecting both the grower and the consumer and, as noted in my report of last year, inspection at shipping point was given a trial in Nova Scotia during the season 1914-15. Its success there led to an extension this year covering Ontario and British Columbia. In these provinces an increase in the staff had to be made to do the work, and ten additional temporary inspectors were employed for a period of some two months.

Inspection at point of shipment has proved so satisfactory that it will be further extended during the coming season. Under the new system, the greater part of the inspection work is done in the orchards and packing houses, and thus our inspectors combine instruction and inspection. During the past season they have been able to assist the packers and shippers in all matters pertaining to the grading, packing, and loading of fruit. Notwithstanding the fact that the crop last year was short and generally of poor quality, making the temptation to pack and grade dishonestly greater than usual, the bulk of the fruit which appeared upon the market was packed and graded in accordance with the provisions of the law, and this I consider may be fairly attributed to the presence of our inspectors in the shipping district.

During the past season the appointment of several of the inspectors in southern Ontario was authorized somewhat earlier than usual in order that special attention might be given to the packing of early fruits. The effect of their work and the result of the twenty-one convictions secured in connection with the overfacing of strawberries, currants, peaches, etc., will doubtless be the adoption of a higher standard in the packing of these fruits.

While the permanent staff of inspectors remained the same as last year, it was necessary as noted above, to appoint some additional temporary inspectors, who were employed for a period of from two to two and a half months in the producing districts.

PROSECUTIONS.

The convictions secured under Part IX of the Inspection and Sale Act were 103 as compared with 78 during 1914-15. While the number is greater this season than last, this does not necessarily mean a retrograde step in the packing and grading of our fruit. There were ten more convictions this year than last with respect to imported fruit and, in addition, twenty-one of the above convictions were in connection with basket fruits, which this season have received more attention from our inspectors than ever before. The prosecutions were as follows:—

Imported fruit	25
British Columbia	2
Ontario	48
Quebec	16
Nova Scotia	10
Total	103

INSPECTION STATISTICS.

The following table gives comparative statements of the number of lots inspected and the number of packages inspected for the season 1908-9—1915-16 inclusive:—

Variety.		Number of lots inspected.	Number of packages in lots inspected.	Number of packages inspected.
1908-9.				
Apples	brls.	9,940	682,657	42,223
"	boxes.	248	100,792	2,701
Pears	"	88	54,150	7,924
Peaches	"	91	140,976	16,005
Plums	baskets.	54	16,505	1,474
Tomatoes	"	53	11,381	779
Small Fruits	quarts.	863	1,184,651	154,874
Total				225,980
1909-10.				
Apples	brls.	7,736	859,572	63,232
"	boxes.	902	157,939	7,363
Pears	"	248	31,459	2,738
Peaches	"	410	60,248	3,817
Plums	baskets.	264	62,883	4,257
Tomatoes	"	149	50,043	3,241
Apricots	boxes.	11	12,495	481
Small fruits	quarts.	2,491	2,310,264	240,751
Total				325,880
1910-11.				
Apples	brls.	4,527	360,768	26,890
"	boxes.	1,347	234,182	9,829
"	baskets.	171	17,551	10,393
Pears	boxes.	371	40,681	2,750
Peaches	"	11	2,269	36
"	baskets.	383	70,564	5,932
Tomatoes	"	56	6,570	601
Plums	"	189	50,575	5,144
Small fruits	quarts.	1,502	568,510	155,048
Total				216,623
1911-12.				
Apples	brls.	13,548	1,085,300	67,706
"	boxes.	1,235	162,249	10,178
Pears	"	389	32,252	2,655
Peaches	"	38	3,487	268
"	baskets.	365	34,606	2,864
Plums	"	336	88,894	7,554
Tomatoes	"	66	48,530	2,012
Small fruits	quarts.	2,120	2,729,143	298,591
Total				391,828
1912-13.				
Apples	brls.	18,457	1,321,440	80,102
"	boxes.	2,101	204,971	33,578
"	baskets.	119	16,249	2,719
Crab apples	boxes.	62	12,186	695
"	baskets.	17	1,395	660
Pears	boxes.	272	36,356	2,202
Peaches	"	65	25,592	1,557
"	baskets.	121	18,837	2,139
Plums	"	186	67,751	7,254
Tomatoes	"	264	39,174	9,940
Small fruits	quarts.	1,187	2,264,559	172,945
Total				310,791

Variety.		Number of lots inspected.	Number of packages in lots inspected.	Number of packages inspected.
1913-14.				
Apples	brls.	11,725	799,510	59,643
"	boxes.	2,631	341,679	29,879
"	baskets.	105	11,908	1,219
Crab apples	boxes.	192	13,250	1,462
Pears	"	977	48,274	8,559
Peaches	"	806	35,494	12,657
"	baskets.	353	60,771	7,584
Plums	"	679	133,159	15,200
Tomatoes	"	173	59,707	8,305
Small fruits	quarts.	736	1,128,907	95,841
Total				239,329
1914-15.				
Apples	brls.	8,926	765,445	59,602
"	boxes.	2,769	457,055	36,118
"	baskets.	191	29,476	3,994
Crab apples	boxes.	38	2,443	951
Pears	"	894	91,121	9,760
Peaches	"	735	183,952	10,085
"	baskets.	147	17,797	2,422
Plums	"	643	180,154	12,294
Tomatoes	"	305	103,742	12,171
Small fruits	quarts.	1,162	1,529,598	151,559
Grapes	baskets.	244	308,728	22,344
Total				321,300
1915-16.				
Apples	brls.	8,882	710,858	60,248
"	boxes.	4,297	758,337	46,791
"	baskets.	204	14,319	1,797
Pears	boxes.	1,062	121,414	8,816
Peaches	"	1,022	270,508	12,575
"	baskets.	838	106,569	10,796
Plums	"	998	482,416	22,231
Tomatoes	"	637	200,343	7,926
Small fruits	quarts.	1,724	2,670,984	275,234
Grapes	baskets.	260	382,332	11,395
Total				457,809

PUBLICITY.

During the past season this branch undertook a special campaign with the object of increasing the home consumption of Canadian fruit. It was obvious that, on account of the conditions existing in Great Britain and Europe there would be a restricted demand in those countries for fruit. More than that, there was also certain to be difficulty in securing vessel space for exporting apples, owing to the fact that ships were being commandeered at short notice by the British Government. These circumstances were sufficient to emphasize the necessity of increasing consumption in this country.

It was thought, too, that a certain degree of publicity was needed in order to educate the public as to: (1) the uses of certain kinds of fruits, (2) the names of varieties, (3) the period during which certain apples were in the best condition, (4) dates of shipment, and (5) methods of preserving. These features had never been brought to public attention, and consequently several unnecessary situations

had arisen in former years. Householders had been uncertain as to the proper date upon which to purchase their stock for preserving, and had often delayed until some varieties were either off the market or too high in price. It was also noticeable that the more popular apples, such as the Northern Spy, were so much in demand that the sale of other varieties, which were quite as good in quality, was very limited.

By judicious advertising, these and other situations were dealt with, and at the same time the merits of Canadian fruit were sufficiently made known to increase consumption and also to sustain a sale at very satisfactory prices.

APPLE PRODUCTION IN ONTARIO IN 1915.

Owing to the number of inquiries which we receive from time to time regarding the quantity of apples produced in Ontario, a special effort was made this year to secure that information. The freight departments of the various railways operating in Ontario were kind enough to give their assistance, and in this way we were able to secure from all their stations the quantity of apples shipped. In addition to this it was necessary, in order to arrive at an estimate of the total quantity marketed, to secure from the evaporators and canning factories figures showing the tonnage used by them. The information we have gathered together in this way is, we think, as accurate as can be obtained by any means. Next year we propose to secure this information monthly during the shipping season so that the railways and others concerned will have less difficulty in compiling the necessary figures. Similar information will also be received from the other fruit-growing provinces.

Last season the production of apples in Ontario, based on the quantities carried by the railroads of Ontario, and used by the evaporators and canning factories, amounted to 6,286 cars. This does not include any fruit consumed in the local markets of producing districts.

It is only fair to add that the Ontario apple crop in 1915 was not, in our opinion, more than 40 per cent of an average crop.

CANADIAN FRUIT AT EXPOSITION.

In connection with the Panama Exposition held at San Francisco during 1915, Canada sent 2,000 boxes of apples. This fruit was collected from all provinces of the Dominion early in the season of 1914, carefully packed and shipped in insulated refrigerator cars to prevent any danger of damage by frost.

During the course of the exposition many reports were received regarding the quality and appearance of the Canadian fruit exhibit, and the consensus of these was that it surpassed in every way all the other exhibits.

Late in the season of 1915 the fruit commissioner received instructions to be prepared to ship one thousand additional boxes of apples to San Diego. Owing to the fact that practically all of the better grades had already been marketed, it was impossible to secure the required quantity in Ontario. The province of British Columbia furnished 450 boxes, and the balance of the exhibit at San Francisco was re-packed to furnish the remainder. The fruit arrived at San Diego in excellent condition, and was most satisfactory.

MEETINGS, ETC.

In addition to their regular inspection duties, the fruit inspectors and other members of the staff assisted at numerous meetings, and in many cases acted as judges of fruit at local fairs and exhibitions. P. J. Carey, the apple-packing expert of the department, continues to do good work in connection with demonstrations.

In order to secure what we could consider reliable information as to the production and marketing problems in the West, Mr. A. H. Flack, Chief Fruit Inspector for the Prairie Provinces, was instructed to spend some time in British Columbia and Washington during the harvesting and marketing season, for the purpose of going into the details of production and marketing. In this he was able to secure a great deal of most valuable information which has given us an insight into the requirements of those markets and into the up-to-date methods employed by the most progressive fruit growers of the Pacific Coast.

ENTOMOLOGICAL BRANCH.

The work of this branch has comprised the administration of the Insects and Pests Regulations of the Destructive Insect and Pest Act; the suppression of the brown-tail moth in Nova Scotia and New Brunswick and the introduction of its parasitic and predaceous insect enemies and those of the gipsy moth into Eastern Canada; the conducting of investigations upon insects affecting farm, garden, and orchard crops, forest and shade trees, domestic and other animals, household and public health, mills and stored products, and the answering of inquiries and giving of advice concerning the control of such insects; the naming of collections of insects for institutions and individuals; and the administration of an appropriation of the Department of Indian Affairs for the care of the orchards on the Indian reservations in British Columbia. In addition the Dominion Entomologist has been called upon to advise on questions relating to the protection of birds and the conservation of our wild life generally, in the interests of which he has been active.

Under the Destructive Insect and Pest Act, nursery stock originating in countries in which the San José Scale occurs was fumigated at our various fumigation stations. During the year an arrangement was concluded with the Government of the province of Nova Scotia whereby they undertook to fumigate, under the supervision of my officer, foreign nursery stock, and accordingly, Truro, N.S., and Digby, N.S., were declared ports of entry for such nursery stock by Order in Council on August 18, 1915. During the statutory importation season of 1914-15, 2,358,352 imported trees and plants originating in Europe, Japan, and the New England States, were inspected for gipsy and brown-tail moths and other foreign insect pests to which they are subject. Owing to the disturbed conditions in Europe, particularly in Belgium and France from which we are accustomed to import the larger portion of our nursery and florists' stock, the number of plants imported during the season 1914-15 was about half of the number imported during the previous season.

The brown-tail moth situation in Nova Scotia and New Brunswick is in a satisfactory condition. In spite of an increase of the infested area, owing to the

spread of the adult insects from the New England States, the intensity of the infestation has been decreased in both provinces by the careful work of the officers in charge. The careful scouting carried out each winter has prevented the establishment of the insect in New Brunswick and any serious increase of infestation in Nova Scotia. I am pleased to take this opportunity of acknowledging the continued co-operation of the Provincial Governments, who employ half the number of men engaged on this work under the direction of my officers.

Fortunately, the gipsy moth has not yet reached Canada, although in its north-easterly spread in Maine it has now arrived within fifty miles of the international boundary, and its arrival in New Brunswick is merely a matter of time.

In order to be prepared for the arrival of the gipsy moth and to assist in establishing a natural control of the brown-tail moth, we have continued the importation of the parasitic and predaceous insect enemies of these pests from the New England States, which work has been possible through the co-operation of the United States Department of Agriculture. The insects were collected in Massachusetts and the parasites were reared by my officers at the gipsy moth laboratory, Melrose Highlands, Mass., and shipped to our entomological laboratory at Fredericton, N.B., from which point they were taken and placed at strategical points in the provinces of Nova Scotia, New Brunswick and Quebec. Up to date over 72,000 parasites and 3,400 predaceous beetles have been imported and liberated.

The success of the work of the trained field officers in charge of the entomological field laboratories in different parts of the Dominion, and the demand on the part of the agriculturists for further assistance in controlling insect pests and outbreaks, rendered it necessary to place a further number of these laboratories on a permanent basis by erecting permanent buildings to take the place of the small temporary buildings which had hitherto served as headquarters for the work. Entomological laboratories providing adequate accommodation for the officers and the work that they are carrying on were erected during 1915 at the following places:—Annapolis Royal, N.S., on a site provided by the town of Annapolis Royal; Fredericton, N.B., on a site provided bp the University of New Brunswick; Treesbank, Man., on a site provided by Mr. Percy Criddle; and Lethbridge, Alta., on the Experimental Farm. The co-operation of the authorities and gentleman mentioned is greatly appreciated.

The following is a list of the entomological field laboratories showing the investigations that are being carried on by my officers in charge:—

Annapolis Royal, N.S.—Investigations on the brown-tail moth, the introduction and breeding of its parasites and control work. The control of the budmoth and green fruit-worms of apple, including experimental work under orchard conditions in the Annapolis Valley. Comparative tests of insecticides. The conducting of an energetic campaign for more spraying.

Fredericton, N.B.—Control work and investigations on the brown-tail moth and the introduction and establishment of the parasitic and predaceous enemies of this insect and the gipsy moth. An investigation on the means by which the natural control of the tent caterpillar, fall webworm, and spruce budworm is effected.

Hemmingford, Que.—The control of apple insects and orchard spraying. Experiments on the control of locusts by bacterial disease.

Vineland Station, Ont.—A detailed study of aphids affecting apple. The continuation of the apple maggot investigation. The control of insects affecting bush fruits, and greenhouse and mill-infesting insects.

Strathroy, Ont.—Investigation of white grubs, and insects affecting shade trees and wood-lots.

Treesbank, Man.—The investigation of white grubs and of insects affecting cereal crops, particularly the Oscinidæ or grass stem-maggots.

Lethbridge, Alta.—The study of the army cutworm and its control with demonstration work in the field. Investigation of the parasites affecting cutworms. Observations on Nematodes.

Agassiz, B.C.—Biological studies of the root maggots and their control. Continuation of the work on the wheat midge and on fruit insects. Discovery of the pear thrips and black currant bud mite.

Vancouver, B.C.—The investigation of the insects affecting coniferous trees in Stanley park. A study of *Chermes* and their alternate hosts; bark beetles and other forest insects.

The progress that has been made in our investigations on insects affecting fruit has been very gratifying, and productive of practical results of great value to fruit-growers.

In Eastern Canada locusts were very abundant and injurious. The timely publication of Entomological Circular No. 5, giving the results of our successful experiments on the control of these insects, was the means of preventing serious losses in many cases where the remedies were applied. In a number of instances the farmers co-operated and distributed the poisoned bait over large areas of infested land with complete success. Serious outbreaks of cutworms occurred throughout Canada in 1915, the provinces of Manitoba and Saskatchewan being most severely infested; hundreds of acres of wheat and oats were destroyed, and garden vegetables were freely attacked. In southern Alberta an extensive outbreak of the army cutworm occurred, covering an area of about 3,000 square miles. Our resident officer immediately took the matter in hand, discovered means of controlling the spread of these insects, and by means of field demonstrations and press notices was able to prevent widespread damage. In Ontario and Manitoba satisfactory progress was made in the investigation that we are conducting on white grubs. In Manitoba we have commenced a study of the stem-maggots flies (Oscinidæ) which affect grasses and cereals. An account has been prepared for publication of the investigations that have been carried on in Ontario and British Columbia for a number of years on the control of root maggots. Much work has also been accomplished in the study of miscellaneous insects affecting field crops.

The work on insects affecting forest and shade trees has been advanced, and a large amount of data of practical value have been secured. In British Columbia the

investigations of the preceding years were continued, particularly in Stanley park, Vancouver, and advice based on these studies on the control of the insects responsible for the damage in the latter area was given to the Board of Park Commissioners. A serious type of injury in cedars on the Pacific coast was found and is being studied. On accounts of reports of dying timber in the Lesser Slave Lake region, an investigation into the causes of this injury was made by my officers and the nature and habits of the destructive species of bark-beetles and wood borers were studied with very profitable results. Forest insects were also studied in Jasper park and certain of the other national parks.

During the year further progress was made in an investigation of insects affecting greenhouses and florists' stock.

Insects affecting public health, household, and live-stock have also been studied. The educational campaign against the house-fly has been continued, and further experiments on its control have been carried out. A catalogue of the ticks of Canada has been prepared and published in the *Transactions of the Royal Society of Canada.*

An investigation on insects infesting elevators, flour mills, granaries and stored products has been commenced during the year, and mills in Montreal, Toronto, Winnipeg, and Calgary have been visited. Few people realize the enormous annual cost entailed in taking steps to control this class of insects in Canada where large amounts of grain are dealt with.

The following publications have been issued during the year:—

Cutworms and their Control. By Arthur Gibson. Entomological Bulletin No. 10; 31 pp., 20 figs. 1915.

The Hessian-Fly and the Western Wheat-stem Sawfly in Manitoba, Saskatchewan, and Alberta. By N. Criddle. Entomological Bulletin No. 11; 23 pp., 4 figs. 1915.

The Control of Locusts in Eastern Canada. By Arthur Gibson. Entomological Circular No. 5, 8 pp., 6 figs. 1915.

The Control of Cutworms in the Prairie Provinces. By E. H. Strickland. Entomological Circular No. 6, 8 pp., 5 figs. 1916.

Results from Spraying in Nova Scotia. By G. E. Sanders and W. H. Brittain. Entomological Circular No. 7, 11 pp. 1916.

Report of the Dominion Entomologist for the year ending March 31, 1915, 40 pp., 4 figs., 1 map. 1915.

In addition, the officers of the branch have contributed papers embodying the more technical results of their work to *The Canadian Entomologist* and other scientific journals. Articles have also been contributed each month to *The Agricultural Gazette of Canada,* and in a number of cases reprints of these articles were issued.

Considerable additions have been made during the year to the National Collection of insects, and we are grateful to Dr. J. M. Aldrich, and other specialists in various orders, for their assistance in the classification and determination of our collections.

SESSIONAL PAPER No. 15

BRANCH OF THE CANADIAN COMMISSIONER OF THE INTERNATIONAL INSTITUTE OF AGRICULTURE.

May, 1915, when Italy joined the Allies, was a critical moment for the institute. The tension in Rome became great, and the difficulties of carrying on the work of the institute increased. The delegates for Austria and Hungary left Rome, and the members of the staff who belonged to these countries and to Germany also found it advisable to leave. Up to August, forty-seven members of the permanent staff, which ordinarily consisted of one hundred, had to leave either because they had been summoned to serve in a military capacity or belonged to countries at war with Italy. In consequence of the closing of the Italian frontiers to the mails coming from Germany and Austria-Hungary, an arrangement was made with the institute's official correspondent for Switzerland, Dr. Laur, by means of which the periodical publications intended for the institute were addressed to him, and abstracts from them made under his direction and forwarded to Rome for publication.

The delegate for Germany on the Permanent Committee, while unwilling to acquiesce in the arrangement proposed by the Italian Government for his uninterrupted collaboration on the Permanent Committee as a resident of Rome, continued after his return to Germany to take an active interest in securing, as far as possible, the regular publication of the German edition of the two large monthly bulletins, The translation and printing of the German edition have been done in Germany under his direction, with the assistance of German employees of the institute returned to that country. Hungary continued its representation on the Permanent Committee through the delegate for Sweden, Baron de Bildt.

Notwithstanding the depletion of the staff at Rome, the regular work of the institute has been continuously carried on with commendable punctuality, very largely due to the ability, tact, and untiring efforts of the president, Marchese Cappelli, and the members of the Permanent Committee, in collaboration with him and with the institute staff. The difficulties of the task were increased because of the inclusion among the absentees of: two chiefs of service, viz., Dr. Hermes, of Germany, Podmanizky, of Hungary; the librarian, Secretary-General Professor Lorenzoni; and twenty-three of the forty-seven editors. Professor Lorenzoni, a native of the Trentino, Austria, who elected to serve in the Italian armies, has again returned to his post. Employees at the various battle fronts were to be allowed during their enforced absence a maximum of six months' pay, and to be permitted, in so far as possible, to resume their duties at the institute on the conclusion of peace.

The financial situation continues sound, notwithstanding some fears at first felt owing to an accumulation of arrears from the non-payment of contributions by certain countries. A considerable proportion of the arrears has recently been paid, the expenses have been notably reduced, and a reserve accumulated which, at the close of 1915, was estimated approximately at $150,000, on which it will be possible to draw in case of need.

At the end of December, publication of the "Bibliographic Bulletin" was discontinued, owing chiefly to a considerable decrease in the number of books received

and the irregularity of their transmission through the mails. The other three monthly bulletins have been issued with commendable regularity.

New features have been introduced into the "International Year Book of Agricultural Statistics," issued in August, 1915, for the years 1913 and 1914. Area, production and trade in cereals, together with the numbers of live stock, are dealt with in five and ten-year periods. The tables of imports and exports are given by country of origin and country of destination, for all cereals and for cotton, details which previously had been furnished for wheat only. A new chapter gives cash prices, on a certain day of the week, of the principal grades of cereals on the most important world's markets for the years 1913 and 1914. There are added, moreover, tables on the production, international commerce, and prices of fertilizers and chemical products useful to agriculture.

A half-yearly summary entitled "Statistical Notes on the Yield, Consumption, and Prices of Cereals, with Rates of Ocean freight" is now published and sent out along with the "Bulletin of Agricultural and Commercial Statistics" in March and September. This new feature is of great practical value, especially comprising as it does the prices expressed in gold francs per quintal based on the rate of exchange in London. It permits an exact comparison to be made between the leading world's markets.

At a meeting of the Permanent Committee held in December a scheme was approved for the publication of an annual review of the international movement of concentrated feeding stuffs, so far as information on the subject is officially available.

One of the institute's services of primary importance is the preparation of the "Year Book of International Legislation," of which the fourth issue appeared in August. In order to better realize the idea of presenting a faithful record of the world's agricultural legislation, there was an analytical introduction of some sixty pages, which will be of the greatest practical assistance to busy legislators who might desire to make this Year Book a convenient manual. For future editions the institute have decided to publish translations into five different languages of the analytical introduction. In the meantime, the Institute Branch is about to publish in the "Bulletin of Foreign Agricultural Intelligence" a translation into English of the introduction to the current issue, which is for the legislation of 1914.

In accordance with the desire of the representatives of the English-speaking countries, it was resolved to adopt new titles for the English editions of the three monthly bulletins, more intelligible to English readers than those previously used, and which are too close translations of the French. The new titles, with mention of the old in parenthesis, are the following:—

(1) International Crop Report and Agricultural Statistics. (Bulletin of Agricultural and Commercial Statistics.)

(2) International Review of the Science and Practice of Agriculture. (Bulletin of Agricultural Intelligence and Plant Diseases.)

(3) International Review of Agricultural Economics. (Bulletin of Economic and Social Intelligence.)

Reference was made in the last annual report to the initiative taken at the

institute in 1914 by the delegate for the United States, Mr. David Lubin, supported by an Act of Congress, advocating the establishment of an International Commerce Commission having consultative, deliberative, and advisory powers regarding ocean trade and ocean freights. The following is a brief outline of the report which is being drawn up under the direct supervision of the secretary general on ocean freight rates, with special reference to the carriage of wheat, cotton, and sugar, for presentation at the next session of the General Assembly:—

I.—Conditions before the outbreak of war.

1. The leading transoceanic trade routes for the above three products.
2. The organization of ocean carriage.
3. The formation of freight rates:—
   (*a*) The factors which determine the cost price of freights.
   (*b*) The factors which determine fluctuations in freight rates above or below cost price. The play of supply and demand. Speculation.
   (*c*) Efforts aiming at the reduction of said fluctuations and at conferring greater stability on freight rates:—
      (1) Measures taken as the result of private action;
      (2) Proposals for government action.

II.—Conditions since the outbreak of war.

1. Increase of freight rates during the war and causes of such increase.
2. Government intervention to moderate or control the rise in freights.

III.—Statistical Tables.

1. Transoceanic imports and exports for the three products selected during a period of ten years.
2. Variations in freight rates from the leading export and import ports for the three selected products and according to the different kinds of transport organizations, before the war, for a period of ten years, i.e., from 1904 to 1914.
3. Variations in freight rates from the leading export and import ports for the three selected products, and according to the different kinds of transport organizations, since the war, i.e., from the 1st August, 1914, to 31st July, 1916.

The Canadian office is charged with furnishing to the institute the information required concerning Canada, and with republishing in Canada the information contained in the official bulletins, together with other information of a technical character derived from other foreign sources. This work is done through the monthly "Bulletin of Foreign Agricultural Intelligence," the distribution of which has increased during the past year from 12,600 to 13,800.

Prominent among the articles of the year were those entitled: "Some Common Birds Useful to the Farmer," "How to Attract Birds—Bird Sanctuaries," "A Preliminary Census of Birds in the United States," "Flax Growing," "Flax Retting and Process," "Fibre Flax Growing." There were five articles, translated from the French in the office of the branch, setting forth the Russian system of meteorology as applied to agriculture, and defining especially "critical periods" of rainfall in respect to the stages of growth of the various cereals. These meteorological articles were published in intimate collaboration with the Agricultural Division of the

Dominion Meteorological Station, Toronto—as a sequel to the long article published in the May number entitled: "Weather Wisdom in Agriculture"—and are based on Professor Broounoff's investigations covering a period of over fifteen years. The information, although designed more particularly for the different local meteorological stations and crop correspondents, cannot fail to be of assistance to farmers desirous of adapting their crops and methods of cultivation to weather conditions.

A great number of inquiries were made by readers for greater details than are contained in the summary articles published in the bulletin. Such inquiries, for instance, with reference to new methods, new machines, seeds of new plants, etc., have led to investigations, through correspondence with foreign countries and experiments in Canada, that give promise of beneficial results. Much of the information desired in such cases has been furnished by this branch from the original publications from which the institute summaries had been abstracted, and which are communicated to the library of this branch as well as to the institute library at Rome by practically all the Governments of the world.

A practice has been introduced of reviewing new books on agriculture for the purpose of inviting the attention of farmers to any they might consider of practical use of them. To the statistical division of the bulletin were added the prices of cereals at the leading world's markets, also the imports and exports of cereals.

During the fiscal year 1915-16 there were added to the library 952 bound books and 6,152 unbound books and pamphlets, making a total, on April 1, of 2,838 bound books and 23,102 unbound books and pamphlets.

Printed catalogue cards to the number of 11,381 have also been received and filed. They are the following:—

1,956 cards representing the publications of the United States Department of Agriculture.

1,000 cards representing the publications of the United States Experiment Stations.

8,425 cards representing the accessions of the Library of the United States Department of Agriculture and the Library of Congress referring to agriculture.

The total number of cards available for consultation is approximately 160,000, including a large proportion of cards prepared and typed in the library. A catalogue of all the publications purchased by the department for the use of the various branches has been maintained. There have been compiled during the year a number of bibliographies, whose value has been acknowledged by commissions and by expert officials of this and other departments desiring special information.

THE PUBLICATIONS BRANCH.

An important feature of the operations of the Publications Branch during the past year was the rapid growth of the mailing lists. Applications averaging almost one thousand a week throughout the year were received and added to the lists. A corresponding increase took place in the number of copies of publications sent out. These amounted to 3,091,435 copies, exceeding the number for the previous year by 1,284,981 pieces.

During the year there were mailed to those on the respective lists, and in response to individual requests, upwards of ninety new publications of this department and small editions of three monthly bulletins issued by the International Agricultural Institute at Rome. The publications thus distributed included the annual reports of the Minister, the Experimental Farms, the Branch of the Dairy and Cold Storage Commissioner, the Seed Commissioner, the Veterinary Director General, the Dominion Entomologist, the Canadian Record of Performance, the Canadian Seed Growers' Association, and the Report of the Proceedings of the Fourth Conference of the Fruit Growers of Canada. Besides these there were issued eight bulletins of the Experimental Farms; three of the Health of Animals Branch; four of the Dairy and Cold Storage Branch; one of the Fruit Branch; two of the Live Stock Branch; three of the Seed Branch; three of the Entomological Branch; eleven pamphlets and a large number of circulars and leaflets issued by the various branches of the department. The distribution also included *The Agricultural Gazette* and other periodical publications noted in the table below.

The following table shows the number of copies mailed during the year to persons on the mailing lists and in response to requests:—

—	Mailing lists	Requests.
Reports	220,321	18,816
Bulletins	978,600	55,550
Seasonable Hints	823,500	3,790
Pamphlets	170,080	35,000
Circulars	477,975	19,820
Leaflets	.....	14,000
The Agricultural Gazette	61,404	2,916
Bulletin of Foreign Agricultural Intelligence	144,000	8,200
Bulletin Agricultural Institute (Original)	9,504	1,170
War Book of 1915	....	13,249
Total	2,885,348	172,511

In addition, there were sent out in small bulk lots to branch Experimental Farms and Stations, agricultural, educational, and other institutions, 33,540 copies, chiefly of bulletins, pamphlets, and circulars.

The addressing of envelopes for the mailing list is done by machinery. Hand addressing is required for publications sent in response to individual request. During the year, 2,341,440 envelopes were machine addressed, nearly six thousand addresses were changed, and 7,319 names removed from the lists.

Early in the year a reclassification of the mailing lists was undertaken. The object was to provide combinations of lists so arranged that a publication may be sent to any number of the subject lists without causing duplication. The new system was fully explained in *The Agricultural Gazette* of Canada for November, 1915. The transfer of names from the old to the new system is in progress.

During the year a large number of newspaper articles were written and sent out. These included press notices of publications issued by this department and of articles issued in connection with the "Patriotism and Production" and "Production and Thrift" campaigns.

The editing and publishing of *The Agricultural Gazette* of Canada has occupied much of the time of the chief officer and his assistant editors. The policy of distributing *The Agricultural Gazette,* outlined in this report for last year, has been followed during the year just closed.

The staff employed in the branch included twenty permanent and seven temporary employees, made up of fourteen clerks, four messengers, and nine packers.

III. PATENTS OF INVENTION.

The following tables show the transactions of the Patent Office, Department of Agriculture, from April, 1915, to March 31, 1916:—

Applications for Patents.	Patents and Certificates Granted.			Caveats.	Assignments of Patents.	Notices under Sec. 8.
	Patents.	Certificates.	Total.			
7,793	6,812	1,419	8,231	419	3,311	1,026

DETAILED STATEMENT PATENT OFFICE FEES FOR YEAR 1915-16.

Month.	Notices.	Patents.	Assignments.	Certified copies.	Caveats.	Sundries.	Subscription.	Total.
1915.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
April	147 95	16,534 75	677 39	249 20	257 00	12 45	118 85	17,997 59
May	153 00	16,128 25	689 30	200 30	180 00	39 25	24 10	17,414 20
June	208 00	15,004 35	600 75	167 10	235 25	5 26	21 30	16,242 01
July	192 00	15,381 60	528 35	152 01	145 10	35 00	13 20	16,447 26
August	218 00	14,321 60	517 20	196 30	109 90	7 05	8 45	15,378 50
September	142 90	13,453 65	520 00	209 87	172 05	3 00	28 80	14,530 27
October	156 15	14,758 70	516 00	280 40	167 95	12 00	13 70	15,904 90
November	142 00	13,454 45	727 70	272 65	200 00	18 50	59 60	14,874 90
December	148 00	15,117 62	745 25	243 30	185 25	27 15	24 30	16,490 87
1916.								
January	183 00	16,455 15	658 05	230 91	175 40	9 00	40 05	17,751 56
February	182 40	16,117 75	1,502 10	170 05	191 00	13 20	167 63	18,344 13
March	179 90	19,622 00	754 55	253 06	186 00	60 10	198 60	21,254 21
	2,053 30	186,349 87	8,436 64	2,625 15	2,204 90	241 96	718 58	202,630 40

NATIONALITY OF INVENTORS.

Countries.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
United States of America	5,021	4,885	4,997	4,964	5,220	4,645	4,972
Great Britain and Ireland	392	359	506	495	558	450	360
*Germany	241	304	336	307	300	107	14
Australia	60	77	99	75	76	76	76
France	75	97	108	100	115	83	55
New Zealand	37	33	46	47	50	29	31
Sweden	39	54	52	64	40	40	44
Belgium	20	25	20	23	33	19	21
Austria	23	20	24	40	35	11	0
Italy	8	12	6	16	14	15	8
Switzerland	12	26	23	20	22	14	22
Denmark	8	5	14	15	16	11	12
Transvaal	12	16	10	7	1	3	3
Hungary	7	6	6	6	5	5	0
Russia	14	18	6	17	13	9	5
Norway	18	20	17	10	32	24	29
Newfoundland	2	3	1	2	1	1	1
Netherlands	0	0	.....	.....	7	4	2
Mexico	11	7	10	8	7	4	4
Cape Province	0	3	4	4	1	0	0
Cuba	1	5	1	1	9	3	0
Spain	1	3	.....	.....	1	1	3
Chile	0	1	.....	1	0	0	1
Finland	0	1	.....	1	0	0	0
Portugal	0	0	.....	.....	0	1	0
Roumania	0	1	1	.....	0	1	0
Grand Duchy of Luxemburg	0	0	.....	.....	0	3	0
Algeria	0	1	.....	.....	0	0	0
Japan	2	0	2	2	1	3	2
India	0	5	3	1	7	3	0
Natal	0	0	1	2	0	0	1
Nicaragua	0	1	.....	.....	0	0	0
Brazil	0	2	1	.....	1	3	0
Turkey	0	0	.....	.....	0	0	0
Poland	2	0	.....	.....	0	0	0
Holland	2	11	8	7	8	5	2
Argentine Republic	5	1	1	.....	2	3	5
Panama (Canal Zone)	0	0	3	.....	3	0	1
Egypt	1	1	.....	.....	1	1	0
Southern Rhodesia	1	.....	.....	.....	0	0	2
Peru	.....	.....	3	2	0	0	0
Hawaii	.....	.....	3	3	0	0	2
Venezuela	.....	.....	2	1	1	0	0
Trinidad	.....	.....	1	.....	0	0	0
Porto Rico	.....	.....	1	2	0	0	0
Tunis	.....	.....	.....	1	0	0	0
Ceylon	.....	.....	.....	1	0	0	0
Straits Settlements	.....	.....	.....	1	0	0	0
Philippine Islands	.....	.....	.....	.....	1	1	2
Canary Islands	.....	.....	.....	.....	1	0	0
Java	.....	.....	.....	.....	1	0	0
Channel Islands	.....	.....	.....	.....	1	0	0
China	.....	.....	.....	.....	.....	1	0
West Indies	.....	.....	.....	.....	.....	1	0
Isle of Man	.....	.....	.....	.....	.....	1	0
Norfolk Islands (South Pacific)	.....	.....	.....	.....	.....	2	1
Alaska	.....	.....	.....	.....	.....	2	1
Bermuda	.....	.....	.....	.....	.....	1	2
Zululand	.....	.....	.....	.....	.....	0	1

* These fourteen patents were granted during the year to assignees of subjects of the Emperor of Germany; the assignment to citizens of countries not at war with Great Britain having been made previous to the outbreak of hostilities.

The total number of patents granted to Canadian inventors was 1,281, and were distributed among the provinces of the Dominion as follows:—

Ontario.	Quebec.	British Columbia.	Manitoba.	Alberta.	Saskatchewan.	New Brunswick.	Nova Scotia.	Prince Edward Island.	Yukon.
540	237	92	89	65	60	21	17	3	1

Patents issued to residents of Canada, with the ratio of population to each patent granted:—

Provinces.	Patents.	One to Every.
British Columbia	92	3,943
Ontario	540	4,666
Manitoba	89	5,109
Alberta	60	6,215
Saskatchewan	65	7,577
Yukon	1	8,000
Quebec	237	8,441
New Brunswick	17	20,695
Nova Scotia	21	21,992
Prince Edward Island	3	31,240

Statement of the number of patents issued under the Act, on which the fees are paid for periods of six, twelve, or eighteen years, at the option of the patentee; and of patents on which the certificates of payments of fees were attached after the issue of patents originally granted for periods of six and twelve years:—

Period for which fees were paid on first issue.			Patents on which Certificates were attached after issue.		Reissues.		
6 years.	12 years.	18 years.	6 years.	12 years.	6 years.	12 years.	18 years.
6,787	3	9	1,381	38	8	1	4

COMPARATIVE STATEMENT of the transactions of the Patent Office from 1907 to 1916, inclusive.

Year.	Applications for Patents.	Patents and Certificates Granted.			Caveats.	Assignments of Patents.	Fees received.
		Patents.	Certificates.	Total.			
							$ cts.
1907	7,077	6,121	634	6,755	285	3,003	169,548 78
1908	7,406	6,774	744	7,518	317	2,900	178,482 49
1909	7,239	6,395	827	7,222	319	3,001	176,692 05
1910	7,789	7,223	1,010	8,233	448	3,147	194,571 54
1911	8,037	7,249	1,002	8,251	406	3,256	200,164 41
1912	8,293	7,399	1,113	8,512	348	3,725	207,762 77
1913	8,681	7,502	1,199	8,701	353	3,741	218,125 02
1914	8,359	7,918	1,323	9,241	354	3,432	215,001 71
1915	7,302	6,867	1,211	8,078	391	3,391	190,028 37
1916	7,793	6,812	1,419	8,231	419	3,311	202,630 40

The total number of reports issued by the examiners during the year was 11,641 and 13 patents were surrendered and reissued.

Out of the total number of patents granted by this office during the year there were 4,972 issued to inventors or assignees resident in the United States, being 73 per cent of the whole issue.

This branch of my department continues to receive the official reports of patents from Great Britain, Australia, New Zealand, United States, Mexico, Portugal, Italy, Belgium, France, and Japan, in addition to other periodicals of a scientific nature, in exchange for the Canadian Patent Office Record.

There were 2,053 patents brought under the conditions of the compulsory license clause, section 44 of the Patent Act.

The number of notices under section 8 of the Patent Act was 1,026.

On the 28th of November, 1914, two licenses were granted under the Orders and Regulations, respecting Patents of Invention, made under "The War Measures Act, 1914," as follows:—

Number of Patent.	Name of Registered Owner.	Short Title.	Name and Address of Licensees	Date of Grant.
133636	Farbwerke Vorm. Meister Lucius & Bruning assignee of Paul Ehrlich and Alfred Bertheim.	The Manufacture of New Derivatives of the Para-Oxyarylarsinic acids,	Ernest Neil Macallum and Charles Newton Candee, Jr., trading under the name and style of the Synthetic Drug Company, Toronto, Ont. Gustave Archambault, M. D., Montreal, Que.	Nov. 28, 1914.
152320	Farbwerke Vorm. Meister Lucius & Bruning assignee of Paul Ehrlich and Alfred Bertheim.	The Manufacture of New Derivatives of the Para Oxyarylarsinic acids.	Ernest Neil Macallum and Charles Newton Candee, Jr., trading under the name and style of the Synthetic Drug Company, Toronto, Ont. Gustave Archambault, M. D., Montreal, Que.	
144873	Farbwerke Vorm. Meister Lucius & Bruning assignee of George Korndorfer.	The Manufacture of Derivatives of Dioxydiamino-arsenobenzene.	Ernest Neil Macallum and Charles Newton Candee, Jr., trading under the name and style of the Synthetic Drug Company, Toronto, Ont. Gustave Archambault, M. D., Montreal, Que.	
144874	Farbwerke Vorm. Meister Lucius & Bruning assignee of George Korndörfer and Baptist Renter.	The Manufacture of Derivatives of Diamidodioxy-arsenobenzene.	Ernest Neil Macallum and Charles Newton Candee, Jr., trading under the name and style of the Synthetic Drug Company, Toronto, Ont. Gustave Archambault, M. D., Montreal, Que.	

IV. COPYRIGHTS, TRADE MARKS, INDUSTRIAL DESIGNS AND TIMBER MARKS.

STATEMENT of Fees received by The Copyright and Trade Mark Branch from April 1, 1915, to March 31, 1916.

Month.	Trade Marks.	Copy-rights.	Designs.	Timber Marks.	Assign-ments.	Copies.	Totals.
1915.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
April	2,740 60	126 49	104 50		55 00	36 15	3,062 74
May	2,820 40	143 66	95 00	4 00	32 20	39 25	3,134 51
June	2,380 70	138 15	65 00	25 00	69 20	8 25	2,686 30
July	2,013 90	126 50	46 00		42 00	4 25	2,232 65
August	3,039 15	113 50	71 00	6 00	32 00	11 50	3,273 15
September	2,831 00	203 65	120 00		69 00	14 75	3,238 40
October	2,169 00	135 97	115 00		38 00	47 00	2,504 97
November	2,659 42	122 50	90 00	10 00	15 00	11 75	2,908 67
December	2,856 55	185 05	160 00	15 50	17 00	23 75	3,257 85
1916.							
January	2,619 92	140 00	75 00	4 00	40 00	17 50	2,896 42
February	2,524 80	104 00	100 00	12 00	60 00	16 00	2,816 80
March	3,330 50	114 50	134 00	2 00	24 00	35 75	3,640 75
	31,985 94	1,653 97	1,175 50	78 50	493 40	265 90	35,653 21
Refunds	5,850 60	24 50	114 00	2 00	12 00	5 00	6,008 10
	26,135 34	1,629 47	1,061 50	76 50	481 40	260 90	29,645 11

The particulars of the registrations made by The Copyright and Trade Mark Branch of the Department of Agriculture during the year ended March 31, 1916, are as follows:—

I. COPYRIGHTS—		
Full Copyrights without Certificates	1,137	
Full Copyrights with Certificates	143	
Temporary Copyrights without Certificates	89	
Temporary Copyrights with Certificates	..	
Interim Copyrights without Certificates	99	
Interim Copyrights with Certificates	3	
Renewals of Copyrights	6	
Assignments	29	
		1,506
II. TRADE MARKS		951
Renewals of Specific Trade Marks		68
Assignments of Trade Marks		231
III. INDUSTRIAL DESIGNS		200
Renewals		15
Assignments		19
IV. TIMBER MARKS		27
Assignments		..
Total registrations		3,017

The following tables show a comparative statement of the business of this branch from 1904 to 1915, inclusive:—

Year.	Letters Received.	Letters sent.	Copyrights Registered.	Certificates of Copyright.	Trade Marks Registered.	Industrial Designs Registered.	Timber Marks Registered.	Assignments Registered.	Fees Received.
									$ cts
1904	2,858	3,293	1,106	228	621	107	25	118	20,647 30
1905	3,367	3,902	1,130	189	661	139	22	154	23,706 75
1906	5,340	5,193	1,228	169	1,119	125	47	282	33,107 10
1907	4,475	4,353	1,140	175	848	182	39	136	30,073 20
1908	6,647	4,980	1,416	170	892	162	44	343	37,514 00
1909	6,320	5,750	1,535	171	1,059	143	108	174	38,071 31
1910	6,411	7,688	1,699	206	1,021	118	39	386	42,153 76
1911	7,027	7,091	1,593	213	1,212	149	39	230	43,327 85
1912	9,435	9,322	1,760	205	2,315	128	15	559	51,043 21
1913	8,441	9,220	1,835	207	1,378	165	57	264	49,409 68
1914	8,190	9,292	1,675	193	1,106	224	24	242	39,599 60
1915	6,815	7,446	1,477	146	1,019	215	27	279	35,653 21

V. PUBLIC HEALTH AND QUARANTINE.

I have again the satisfaction of being able to state that no epidemic infectious disease from abroad has been allowed to enter Canada this year.

At my coast quarantine stations on the Atlantic and Pacific oceans 138,685 persons have been inspected.

Eighty persons were admitted into hospital at the various stations. In 1914 there were 543. In 1913, 1,966.

In every instance the disease was stamped out at the station, and so prevented from appearing inland.

The small number of persons inspected and of patients admitted to hospital compared with last year and the year before is doubtless owing to the marked diminution of immigration due to the war.

Asiatic Cholera.—During the past year this disease has been reported in the following countries: Austria-Hungary, Borneo, Ceylon, China, Dutch East Indies, Germany, India, Indo-China, Italy, Japan, Java, Philippine Islands, Russia, Serbia, Siam, Turkey in Europe and Turkey in Asia.

The experiences during the year in connection with this disease have confirmed previous observations, and placed the existence of healthy "carriers" beyond doubt.

Bubonic Plague.—This disease has been reported during the year in the following countries: Argentina, Azores, Bahrein (in Persian gulf), Brazil, Ceylon, China, Cuba, Dutch East Indies, Ecuador, Egypt, Greece, Hawaii, India, Indo-China, Japan, Libya (Tripoli), Mauritius, Persia, Peru, Russia, Senegal, Siam, Straits Settlements, Turkey, Union of South Africa, United States, and Zanzibar.

In the United States of America cases of human plague were reported at New Orleans on August 27 and September 8 last. Plague-infected rats were found on May 6, August 8 and 25; September 3, 12, 17 and 25; November 6, 23, 24 and 26;

December 4 and 17; January, 1916, on the 6th, 7th, 8th, 25th and 29th; February 3 and 10; and on the 13th of March. In California, infected ground squirrels were found on July 1; August 6, 9, 12, 14 and 23; November 13; and on the 4th, 7th and 18th of March.

In Seattle a plague-infected rat was found on July 28, and one on November 30.

In Louisiana a plague-infected rat was trapped on the 4th of March, and one on the 10th.

In Hong Kong the last reported case of plague was on the 4th of March.

In Hawaii the last case of human plague was on December 16, 1915, and the last case of rat plague was on January 18, 1916. In Peru during the year 1915 there were 455 cases of plague, with 240 deaths.

At Zanzibar during the month of December, 1915, 4,421 rats were examined. No plague infection was found.

In Liverpool, England, the examination of rats was continued throughout the year. No plague infection was found.

Smallpox.—This disease has again had a practically worldwide appearance during this year.

One case of it has presented itself at the quarantine station at William Head, B.C. It is still under treatment there.

Prior to the date of my last annual report owing to epidemic outbreaks of smallpox in the bordering states of Minnesota and North Dakota, U.S.A., we had been obliged to establish an international medical quarantine frontier inspection at Emo and at Fort Frances, Ont.; at Gretna, Man.; and subsequently at Rainy River, Ont. Owing to the cessation of the epidemic threatening, I was enabled to raise them all on the 15th of June last.

Typhus Fever.—The epidemic of typhus fever which spread over Serbia from December, 1914, to July last was, in proportion to the territory involved and the population affected, the most severe that Europe has ever experienced. Conservatively, it is stated that one out of every five of the two and a half million population was attacked by typhus, and 135,000, including 30,000 Austrian prisoners, died of typhus during this epidemic.

Leprosy.—There are at present in the leper lazaretto at Tracadie, N.B., fifteen leper patients, seven males and eight females; the smallest number for many years. Eleven of these are of French-Canadian (Acadian) origin, one of English, one of Icelandic, one of Russian, and one of Syrian. Two of these patients are now practically well. The two former inmates discharged, apparently cured, in 1912, remain in good health. There were two deaths during the year, and one new patient was admitted. Amelioration of symptoms and sufferings continues to be observed under the treatment now being carried out.

The leper lazaretto at Darcy Island, British Columbia, has not been in use this year; its former inmates having been sent home to China, to their great satisfaction, and no new case has been reported in British Columbia this year.

Beri-beri.—Among investigators into this disease a large majority accept the tenet that beri-beri is the result of subsisting on a diet deficient in certain sub-

stances termed "vitamins," which are essential for the normal functioning of the nervous system.

There are, however, some authorities who still question the deficiency theory, and who maintain that beri-beri is probably of an infectious nature.

Enteric Fever.—As further evidence of the value of anti-typhoid inoculations, the report of the Research Society issued in January last says that among the Expeditionary Force in France and Belgium about 95 per cent have been protected against enteric fever, the annual average being about 90 per cent. The annual admission ratio per 1,000 is more than nine times greater among the non-protected than among the protected. Among the non-protected it is 9·1 per 1,000. Among the protected only 1 per 1,000. The death ratio is thirty-one times greater.

Trench Fever.—This disease is a comparatively short fever, which has affected thousands of men in the trench zone and the men of the Royal Army Medical Corps who attend to those suffering from it. Being peculiar in many of its features it has received the name trench fever. The disease is a definite entity, and of infective nature.

American Public Health Association.—This association includes the United States of America, the Dominion of Canada, the Republic of Mexico and the Republic of Cuba. The Director-General of Public Health has represented the Dominion at the annual meetings of this association since 1887 and is one of its past presidents. I delegated him to attend the annual meeting at Rochester, N.Y., September 6 to 10. At this meeting he was elected an honourary member of the association. Other sanitarians similarly honoured at the same time were Dr. Stephen Smith, the first president, 1872-3 and 4; Surgeon-General Gorgas, of Panama Canal Zone fame; Surgeon-General Strenburg, the bacteriologist; and Dr. Henry Holton, of Vermont.

Circulars.—Circular letters were issued from time to time to the different officers, drawing their attention to the various matters during the year connected with the appearances and movements of epidemic diseases abroad.

Public Works Health Act.—The inspectors report that the year has been an exceptional one in its freedom from infectious disease amongst the men employed in the various public works coming under their observation.

Changes in Medical Staff.—Drs. V. N. Mackay, and Wm. Warwick, Medical Assistants and Bacteriologists at Halifax, N.S., and St. John, N.B., were given temporary leave to join the Canadian Army Medical Service for overseas service. Their places were filled for the time by the employment of Dr. A. E. Blackett, at Halifax, and by the transfer to St. John of Dr. Haugerty from the St. Lawrence service for the winter.

Military Occupation.—To meet the demands for preparation for defence, I allowed the occupation by the military of all the buildings I could possibly spare at the quarantine stations of Lawlor's island, Halifax, N.S., and Partridge island, St. John, N.B., without entirely crippling them for their essential quarantine service. These islands occupy advanced positions in their respective harbours, and their military occupation was at the request of the Department of Militia and Defence.

Aftermath.—Lord Derby has recently voiced the feeling generally held that there will undoubtedly be a large emigration from Europe to the overseas dominions after the war. Tired of war conditions, the people of Britain and other European countries will doubtless seek peace in the newer lands. Of all the dominions, can any present such attractions as Canada, with its boundless prairies, and its 300,000,000 acres of untouched farm land in the west?

To meet this impending immigration, and the disease that is only too probably to be expected with it, the Public Health Service will be ready and alert to make the best possible use of the appliances in its hands for the protection of this Dominion.

The whole respectfully submitted.

MARTIN BURRELL,
Minister of Agriculture.

PUBLIC HEALTH.

APPENDIX No. 1.

REPORT OF THE DIRECTOR-GENERAL OF PUBLIC HEALTH.

(F. Montizambert, I.S.O., M.D. Edin., F.R.C.S.E., D.C.L.)

March 31, 1916.

Sir,—I have the honour to submit this my report as Director-General of Public Health for the year ending this day.

In some of your quarantine ports the number of inspections has been considerably greater than in former years. This is, in part at least, due to the withdrawal for war purposes of large vessels and their replacement by more numerous smaller ones.

The number of persons inspected, and of persons admitted to your quarantine hospitals shows a marked decrease owing to the enormous falling-off in immigration and passenger travel generally on account of the war.

Newspaper and public comment endorse Lord Derby's recent statement that there will undoubtedly be a large emigration to the overseas dominions after the war. Tired of war conditions, the people of Britain and other European countries will doubtless seek peace in the newer lands, and of all the dominions can any present such attractions as Canada, with its 300,000,000 acres of untouched farm land in the West?

To meet this impending immigration, and the sickness that is only too probably to be expected with it, your quarantine stations should be more fully prepared than they are at present. The most pressing needs are:—

At Grosse Isle, Que., the completion of the sorely-needed hospital, on the foundations already built; and a "T" across the end of the western wharf so as to allow infected vessels to be brought to it.

At Partridge island, St. John, N.B., a deep-water wharf.

At William Head, Victoria, B.C., a water supply for fire and general purposes.

At Prince Rupert, B.C., a water supply, and a disinfection building.

Asiatic Cholera.—Since my last annual report this disease has been reported in the following countries: Austria-Hungary, Borneo, Ceylon, China, Dutch East Indies, Germany, India, Indo-China, Italy, Japan, Java, Philippine Islands, Russia, Serbia, Siam, Turkey in Europe and Turkey in Asia.

"The statistics and experiences derived from the cholera outbreak in Manila somewhat more than a year ago furnish a number of new considerations for the guidance of those entrusted with the problems of public health. Two important features stand out clearly in the light of the successful control of the situation in the Philippines. One of these is the demonstration that in effectively combating a cholera invasion, the use of laboratory facilities in the making of bacteriologic diagnosis on a large scale is absolutely essential. Without such assistance as is

available in the well-equipped Insular Bureau of Science, the results which have been accomplished would have been impossible. From November 1 to November 10 alone approximately 20,000 bacteriologic examinations were made, and before the work of inspection was completed, the number of examinations must have exceeded 100,000. The administration of such a service is, by itself, an affair of no small magnitude; and the task assumes an even more formidable aspect when one recalls that social and political difficulties often need to be overcome in order to make possible an inspection of persons who usually present no outward manifestations of ill health. Carriers must be detected regardless of the consequences. To avoid a danger one must know where it lurks.

Lieut.-Col. Munson, who was the adviser of the Bureau of Health, but who has now returned to this country, has remarked that the work at Manila meant invasion of the accepted rights of the home and of the individual on a scale perhaps unprecedented for any community. The collection of the fecal specimens might fairly be regarded as repulsive to modesty. Add to this, he continues, the facts that the search was made among persons, to themselves and others apparently healthy, who could scarcely fall even within the class of suspects, and that those found to be carriers were subjected to all the inconveniences of isolation, separation from family, loss of earning capacity, etc., and it is apparent with what tact and caution the work had to be carried out and public opinion created in favour of it as an unpleasant but necessary measure.

The second lesson of the Manila outbreak of 1914 was the importance of the cholera carrier. In periods when the mortality is high, the proportion of persons who are carriers without presenting symptoms of the disease will be relatively small; but when the mortality is light, according to Munson the lack of virulence in the germ will probably permit it to be harboured in many cases without the production of symptoms, so that a considerable percentage of carriers may be expected. Outbreaks such as that of 1914 in Manila, accordingly, occur in which the carriers appear to have been not only the most numerous but also the most insidious and dangerous sources of infection. It was undoubtedly spread chiefly by personal contact. Public water supplies and articles of food—all of which were formerly charged with a major offense in the transmission of such diseases—were eliminated as channels of infection, and likewise the flies played an insignificant part at most in its spread. According to the experts in the field, the lack of use of toilet paper, certain habits in the use of the toilet, infected fingers, and the habit of eating food with the hands from a common dish furnish opportunities for passing the infection from the carrier to another person.

A further lesson emphasized by the recent experiences is that the five-day period usually accepted for incubation and quarantine will not suffice in a very considerable number of instances. This, as Munson points out, sheds light on cholera situations not otherwise readily explained. An observed convict who died of true cholera after an eighteen-day period as a carrier "might have travelled half way around the world scattering his infection broadcast" and died of the disease in a place thousands of miles from any other source of infection. There is a warning in such cases, says Munson, that health officers all over the world would do well to heed.

An examination of many cholera patients and carriers by Schobl showed that vitality of cholera vibrios in the human body is not inconsiderable. In forty-three out of eighty patients, the stools were positive for from two to seven days; in twenty-two, from one to two weeks; in six, from two to three weeks; in one case, for forty-eight days. Treatment to free the intestine of the invading micro-organism seems to have been of little value. Trained experts are necessary to manage the serious situations that may be created. Munson's advice deserves to be emphas-

ized; the prompt eradication of a general cholera infection includes the detection and isolation of carriers as a scientific prerequisite.

> The British Medical Journal, May 22, last, says: The existence of healthy "carriers" is beyond doubt. The length of time during which the vibrio can be recovered from the stools of convalescents is variable. V. Stuhlern (1909) gave ninety days, Jakowleff fifty-seven days, Burgers sixty-nine days. Montefusco (1910) obtained positive results in 46 per cent from ten to fifteen days, in 21 per cent from fifteen to twenty, in 10 per cent from twenty to twenty-five, in 10 per cent from one to ten days, while the remainder fell between thirty-five and seventy-eight days. The percentages of healthy contacts excreting vibrios vary. Taking the case of arrivals from districts not known to be infected, of 5,200 healthy persons examined in Prussia on the Russian frontier in 1910, three were "carriers"; in Holland during the same year, of 7,338 arrivals from suspected Baltic ports seven were "carriers." In Naples, of 2,000 intending emigrants twelve were "carriers." The proportions are much higher in epidemic times, so many as six per cent being found at Petrograd during the epidemic of 1910, while much higher percentages have been recorded in Austria and Roumania but based upon small absolute numbers. The duration of the healthy "carriers" condition does not usually exceed three weeks; thus of 577 "carriers" at Petrograd, only twenty-four still persisted after three weeks, but rare instances are known of more than six months' duration (Gaffky, Janssen, Sparmberg).
>
> The epidemiological importance of "carriers" is at present indeterminate, and, as we have remarked, the presence of the micro-organism is only one, although an essential, factor of the disease.

It is not far from the truth to say that until recently the treatment of cholera has been essentially expectant and symptomatic. Specific antiseptic substances administered by mouth to inhibit the growth of the infecting organisms in the alimentary tract have been without value. Attempts have been made sometimes to expel the bacterial invaders by the use of purgative drugs. Yet such procedures fail to bring any relief whatever to some of the consequences and complications that attend the original intoxication. Prominent among the latter are the renal lesions, not infrequently accompanied by uremia.

Dr. A. W. Sellards of the Johns Hopkins Hospital, who has had an extensive experience in the treatment of cholera in the Far East, has lately pointed out that some of the symptoms of uremia which resemble toxemia are due, not to the presence of a foreign toxin, but to the depletion of a normal constituent of the blood. In cholera, according to Sellards, there is a greatly increased tolerance to alkali bicarbonate. This tolerance, however, is not specific for the nephritis of cholera. It occurs not only in nephritis arising from other infections, but also in the nephritides which are free from infection. In this respect, therefore, there is a close relationship between the renal lesions of Asiatic cholera and the ordinary forms of acute and chronic nephritis. In renal disease (chronic interstitial nephritis and primary contracted kidney) a group of clinical symptoms, including dyspnea, changes in the alkali content of the blood, and decrease in its quota of carbon dioxide, reach their height during the stage of uremia. Similarly uremia, which follows the common renal disturbances of cholera, is plainly something more than a mere intoxication. The death rate from the uremia alone has been higher than in the majority of the common specific bacterial infections.

It is at this stage of reaction in cholera, when the evidence of nephritis is becoming prominent, that a distinct increase in the tolerance to sodium bicarbonate develops. Sellards has described it as a clinical picture of acidosis. It seems best, however, to avoid the use of this ill defined term, which means intoxication with

acid in its original sense. As Fischer remarks: The word "acidosis" has had its meaning twisted so greatly to suit the whims of different authors that it might well disappear from our medical and physiologic writings. The mere finding of various acids or "acidosis compounds" in the urine or elsewhere does not yet mean an acid intoxication. The acetone bodies of the diabetic do not betray an acid intoxication, but an altered chemistry from which an acid intoxication may result. A normal or abnormal acid may be produced in great quantities in the organism and appear in the urine, yet if sufficient base is available they are neutralized and so are practically without effect. What Sellards actually implies to be the nature of the "acidosis" associated with the nephritis and uremia of cholera is an impoverishment of the sources of fixed bases in the body.

This deficiency in carbonates, with its train of symptoms ending in coma and air hunger, is conceivably attendant upon a diminished excretion of acid on account of urinary changes due perhaps to impaired functional capacity of the kidney; or it may be attributable to loss of alkali directly by the bowel during the excessive purging that occurs. In any event, Sellards believes that the clinical evidences are sufficiently definite to constitute a rational basis for treatment of the uremia of cholera with alkalies in the form of bicarbonate. He maintains that in practice it has proved far more efficient than the use of solutions of sodium chloride, which have been employed with some success in the stage of collapse to restore the fluid lost from the body.

Alkali therapy in cholera is not entirely new. The attempt of Sellards is in the direction of a more rational application of the principles discussed above. It is regarded as advisable to give a mildly alkaline solution (0.5 per cent of sodium bicarbonate) early in the course of the disease, before an outspoken uremia has developed, and to increase the quantities if symptoms of uremia appear. As much as 100 grams (3½ ounces) of bicarbonate may be required in the course of two or three days. Experience in two epidemics of cholera speaks favourably for this mode of treatment.—*Journal A.M.A.*

Bubonic Plague.—This disease has been reported during the year in the following countries: Argentina, Azores, Bahrein (in Persian gulf), Brazil, Ceylon, China, Cuba, Dutch East Indies, Ecuador, Egypt, Greece, Hawaii, India, Indo-China, Japan, Lybia (Tripoli), Mauritius, Persia, Peru, Russia, Senegal, Siam, Straits Settlements, Turkey, Union of South Africa, United States and Zanzibar.

In the United States of America the work of plague eradication has been steadily carried on by the United States Public Health Service. Cases of human plague were reported at New Orleans on August 27, and September 8 last. Plague-infected rats were found in that city in May, August, September, November, and December, 1915, and in January, February, and March of this year. The last one reported was on the 16th of March.

The plague status of New Orleans is given by the United States Public Health Service to March 18, 1916, as follows:—

Last case of human plague, September 8, 1915.
Last case of rodent plague, March 16, 1916.
Total number of rodents captured to March 18, 648,544.
Total number of rodents examined to March 18, 336,776.
Total cases of rodent plague to March 18, by species:—

Mus musculus	6
Mus rattus	18
Mus alexandrinus	12
Mus norvegicus	246
Total rodent cases to March 18, 1916	282

The Journal of the American Medical Association thus summed up the plague situation in New Orleans on October 2, last:—

> After a lapse of nearly a year a case of human plague occurred in the city of New Orleans, August 27. This case was confirmed as true bubonic plague on September 8. The epidemiologic investigations as to the exact source of the infection have not yet been completed but it is believed that it was probably received in the city of New Orleans. The occurrence of this case demonstrates the difficulties surrounding the eradication of the disease and indicate that had it not been for the active co-operative efforts of the United States Public Health Service and of the departments of health of the state of Louisiana and the city of New Orleans, the outbreak would have reached greater proportions and would have been longer continued. It also points out to other cities the necessity for ridding themselves of the rodent carriers of the disease and of thoroughly rat proofing all of their buildings. No fear is felt that this case will be followed by an outbreak. Officers and men of the Public Health Service, well trained in the control of the disease, are on the ground and with the health authorities of the city of New Orleans are taking every precaution to prevent the spread of the disease from the city and within it. During the three months from July 17 to September 18, the United States Public Health Service, in its work against bubonic plague in New Orleans, fumigated 118 vessels with sulphur, 144 with carbon monoxide and 15 with hydrocyanic acid gas; and issued 345 clean bills of health and 54 foul bills of health. In the department of field operations 56,233 rats were trapped, 101,226 premises were inspected and 7,281 buildings were rat proofed. The department of laboratory operations received 7,281 specimens of mus rattus; 13,988 of mus Norvegicus; 1,090 of mus Alexandrinus; 38,915 of mus musculus; 466 wood rats, 308 musk rats and 842 putrid rats. In all, 56,160 rats were received at the laboratory. Of these, 18,605 were examined, 169 were found suspicious and in 7 rats the diagnosis of plague was confirmed. The confirmed rodent cases were as follows: No. 245, captured at 617 St. Marys street, July 7, diagnosis confirmed July 14, premises treated by intensive trapping, premises vacated and demolished and rat proofing initiated; No. 246, captured at Galves and Erato streets, July 13, diagnosis confirmed July 20, and premises treated with intensive trapping in the neighbourhood and on the Galves dump and pushing forward of the rat-proofing operations; No. 247, captured at 536 S. Roman street, August 1, diagnosis confirmed August 8, premises treated by intensive trapping, destruction of rat harbours, spraying of the premises with pulecide and the completion of rat proofing; No. 248, captured at 2503 Howard street, August 17, diagnosis confirmed August 25, and the premises treated by intensive trapping, destruction of rat harbours, premises sprayed with pulecide and rat proofing expedited; No. 249, captured at Harmony Street Wharf, August 19, diagnosis confirmed September 2, and premises treated by intensive trapping; No. 250, captured at 1423 Joseph street, September 6, diagnosis confirmed September 12, premises treated by summary destruction of rat harbours, spraying of pulecide in the vicinity, intensive trapping and rat proofing, and No. 251, captured at 837 S. Fulton street, September 9, diagnosis confirmed September 14, premises treated by intensive trapping, fumigation by cyanid gas and rat proofing. During the week ended July 24, one suspicious human case was inspected and another during the week ended August 28, and one human plague case was discovered as reported above. Since the initiation of the work against plague in New Orleans, 44,938 buildings have been rat proofed, and 442,497 rodents have been captured, of which 286,087 were examined. Rodent plague was found in 4 cases in mus musculus, in 17 cases in mus rattus, in 8 cases in mus Alexandrinus, and in 222 cases in mus Norvegicus.

In the Ohio Public Health Journal Assistant Surgeon General W. C. Rucker writes as follows: It is not at all unlikely that a thorough search would demonstrate the presence of plague in other American seaports having a large foreign commerce.

The experience at New Orleans is an ample demonstration of this assertion. Several thousand rats were examined before a single one was found which was plague-infected, and this one would in all probability have been entirely overlooked had it not been for the large experience of the examiners. The examination of rats is a matter requiring considerable skill and much experience, and whenever there is a plague outbreak as many sanitary officers as possible should visit the scene and thoroughly familiarize themselves with the methods to be used in diagnosing, studying, and combating the disease. This was done at New Orleans, and representations from many of the States found there an excellent opportunity to acquire knowledge of the disease at first hand.

Granted the existence of such a condition, what are the steps to be taken to combat it? The first line of defence is maritime quarantine. This may be so applied as to be exceedingly effective, but such efficiency is to be obtained only at the price of disastrous interference with commerce. The routine disinfection of ships, if done very thoroughly, will prevent the introduction of rats, and therefore the introduction of bubonic plague, but such a measure is of temporary value only, and if omitted a single time may be followed by the introduction of plague rats. In the case of vessels sailing from known plague ports, such fumigation should not be omitted, and in the protection of ports which have not been rat proofed it is also necessary. To sum up, quarantine is absolutely effective only at the cost of commerce. It is at best a makeshift. Disinfection is expensive and not always certain.

The second line of defence is at the wharves and consists in the prevention of the embarkation or disembarkation of rodents. This is accomplished by the use of metal rat guards on all mooring lines; by breasting the vessel off from the wharf by rafts or spars; by the guarding of gang planks; and by the inspection of the freight to determine its rat-proof, rat-free condition prior to loading or unloading. The last is a valuable measure, but not one upon which absolute reliance can be placed.

The third line of defence may consist in the immunization of human beings against bubonic plague. This is at best a weak reed upon which to lean. In the absence of an epidemic it is manifestly impossible in American cities to enforce Haffkinization. Under the most favourable conditions only a small portion of the community would consent to voluntary immunization, and of those who took the treatment only a small proportion would be among the stevedore and water-front class, the very people who are most liable to the disease at the beginning of the epidemic.

The fourth line of defence consists in rat proofing the environment in which man works and lives. All of the other lines of defence or any combination of them may be used, but the single one upon which absolute reliance can be placed and from which lasting protection may be obtained is by the insulation of man from the animal which serves as the disseminating host of bubonic plague. Any city which will render itself completely rat proof need have no fear whatsoever of plague. The introduction of plague rats into such a place will be an occurrence of no account, because if rats and therefore the insects which they harbour are excluded from close contact with man it is a matter of entire indifference to him whether the rats have plague or not. It is not infrequently urged that rat proofing is expensive. In the final analysis this is not true, and by reason of the more rapid and increased commercial communication which we have with all the rest of the world, rat proofing has become as absolutely necessary as are good roads, sewers, and public water supplies.

No modern city can afford to regard rat proofing as a luxury. It is the duty of every municipality to incorporate in its public health and building codes ordinances

requiring the rat proofing of all structures within the limits of its jurisdiction. If the passage of such legislation is put off until an epidemic has appeared the work must be done under pressure. It is then relatively expensive. If the work is done gradually, particularly if it is done at the time the building is erected, the cost is comparatively trifling.

The only kind of rat proofing which is really worth while is by the use of permanent impervious material, such as brick, concrete, or stone. This will fortify the ground areas against the entrance of the Norway rat. In the installation of such rat proofing great care is necessary that all accidental openings, such as are found around plumbing, electric wiring, and the like, be closed effectively. All openings above the ground area should be closed with metal screening so that the climbing rats may not enter in this way. Those who live or work in rat-proof premises need have no fear of plague, and the city which is rat proof will not become the scene of an epidemic of the disease.

The eradiction of plague from the city of New Orleans has already cost the nation, the state, and the municipality upward of $400,000, exclusive of the large sums of money which corporations and private individuals have laid out in rat proofing. The $400,000 expended for epidemic measures would have gone a long way toward building permaneent fortifications against rats. In addition, it should be pointed out that the business losses which the presence of an epidemic produces are so great as to be almost beyond computation.

In California infected ground squirrels were found in July, August, November, and on the 4th, 7th, and 18th of this month.

The following record of plague infection in California is given by the United States Public Health Service:—

Places in California.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number rodents found infected since May, 1907.
Cities:				
San Francisco	Jan. 30, 1908	Oct. 23, 1908	(1)	398 rats.
Oakland	Aug. 9, 1911	Dec. 1, 1908	(1)	126 rats.
Berkeley	" 28, 1907	(1)	(1)	(1)
Los Angeles	" 11, 1908	(1)	Aug. 21, 1908	1 squirrel.
Counties:				
Alameda (exclusive of Oakland and Berkeley)	Sept. 24, 1909	Oct. 17, 1909[2]	July 12, 1915	287 squirrels; 1 wood rat.
Contra Costa	July 13, 1915	(1)	Nov. 12, 1915	1,597 squirrels.
Fresno	(1)	(1)	Oct. 27, 1911	1 squirrel.
Merced	(1)	(1)	July 12, 1911	5 squirrels.
Monterey	(1)	(1)	Feb. 23, 1910	11 squirrels.
San Benito	June 4, 1913	(1)	Aug. 14, 1915	50 squirrels.
San Joaquin	Sept. 18, 1911	(1)	" 26, 1911	18 squirrels.
San Luis Obispo	(1)	(1)	Jan. 29, 1910	1 squirrel.
Santa Clara	Aug. 31, 1910	(1)	July 23, 1913	25 squirrels.
Santa Cruz	(1)	(1)	May 17, 1910	3 squirrels.
Stanislaus	(1)	(1)	June 2, 1911	13 squirrels.

[1] None. [2] Wood rat.

The work is being carried on in the following named counties: Alameda, Contra Costa, San Francisco, Stanislaus, San Benito, Monterey, Lassen and Modoc.

In Seattle, Wash., plague-infected rats were found on July 28, and on November 30.

In Hong Kong the last reported case of human plague was on the 4th of this month.

In Shanghai during the week ended February 12, 1916, out of 229 rats examined, one was found plague-infected.

In Liverpool, during the two weeks ended February 26, 1916, 492 rats were examined. No plague-infection was found.

In Peru, during the year 1915, 455 cases of plague with 240 deaths were reported.

In Hawaii the last case of human plague was on December 16, 1915, and the last case of rat plague on January 18, 1916.

Union of South Africa, Orange Free State: During the period from January 23 to February 7, 1916, 11 fatal cases of plague, 10 of which occurred in natives and one in a European, were notified in the Orange Free State. The foci of infection were three farms situated in the Hoopstad and Winsburg districts.

At Zanzibar during the month of December, 1915, 4,421 rats were examined. No plague infection was found.

Smallpox.—This disease has had its world-wide prevalence again this year. There is now a vessel, the ss. *Titan* from Yokohama in quarantine at your William Head station for smallpox amongst her 74 passengers. On account of its prevalence in North Dakota and Minnesota frontier medical inspection had to be carried out at Gretna, Man., and at Emo, Fort Francis, and Rainy River, Ont., until June 15, last.

The Journal of the American Medical Association writes:—

> Although it considers antivaccination legislation a remote possibility at the present session of the Pennsylvania legislature, the Philadelphia *Record* advises caution, since "the antivaccinationists are as industrious as beavers and as persistent as terriers"; as their measures are cropping up continually, "unless public attention is kept on their campaign they will here and there succeed in their efforts to popularize smallpox." This disease in the eighteenth century is spoken of as "the most appalling foe to the human race," but in recent times has been so thoroughly suppressed that in some communities havoc resulted because it was not recognized by physicians, who had never seen a case. The specious argument of the antivaccinationists that, because smallpox is rare there is no occasion for vaccination, is answered by saying, "Let vaccination be abandoned for a few years, and there will be enough smallpox to make the people, lay and medical familiar with it." Indeed the people of a great many communities are becoming familiar with it to their serious cost, for the disease, because of neglect of vaccination, seems to become more widespread each year. The right of the people to protect themselves from the disease is thus put by the *Record*: "Persons who insist on their right to have smallpox if they wish it, or choose to take their chances, assume precisely the attitude of the man who insists on his right to build a frame house in the middle of a city. If he is willing to take the chance of a fire, he says, whose business is it? Well, it is very plainly the business of the neighbours whose houses would be endangered by the presence of a combustible structure. The unvaccinated child is a menace to a school because he may at any time develop the disease, and if so, he has probably communicated it to a dozen other children of parents who insist on their constitutional rights to take and disseminate smallpox. No man has the right needlessly to make himself or his child a possible conveyor of an appalling pestilence."
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> One of the stock arguments of the antivaccinationists is that cowpox vaccine may become contaminated with the germs of infectious disease and so transmit the latter to the innocent victim of the assault by the vaccinator. It cannot be denied that tetanus has sometimes attacked recently vaccinated persons, and so there is some plausibility in the contention of the anti's that the tetanus spores were implanted with the vaccine virus. The repeated charges that

Public Works Health Act.—The inspectors report that the year has been exceptionally free from infectious disease amongst the workmen employed in the various works connected with railway construction, canals, and tunnels. They report the medical service as satisfactory, and the sleeping quarters and boarding of the men employed fully equal to the good conditions of previous years.

Changes in the Medical Staff.—At Halifax, N.S., Dr. J. V. Graham has replaced Dr. Blackett as substitute for Dr. V. N. Mackay, overseas. At St. John, N.B., Dr. Heagerty again took winter duty for Dr. Warwick, overseas. At William Head, B.C., the position of assistant medical officer and bacteriologist is at present vacant. At Prince Rupert, B.C., Dr. John Cade is acting as a substitute for Dr. Tremayne, overseas.

The whole respectfully submitted.

MARTIN BURRELL,
Minister of Agriculture.

such has been the case have led Dr. John R. Anderson, director of the hygienic laboratory, United States Public Health Service, to undertake a careful investigation of all cases of tetanus following vaccination reported in the past ten years and he has endeavoured to collect accurate data concerning such accidents. The results of this investigation and of a series of animal experiments seem to warrant certain conclusions, of which the following is a summary (Public Health Reports, July 16): (1) It is difficult, if not impossible, to produce tetanus in susceptible animals by vaccination with virus containing large numbers of tetanus organisms which have been purposely placed therein. (2) In view of the failure to demonstrate tetanus organisms in the large amount of vaccine virus specifically examined for this purpose, it seems exceedingly improbable that vaccine virus as sold in the United States contains tetanus organisms. (3) From 1904 to 1913, inclusive, over 31,000,000 doses of vaccine virus were used in the United States. Yet information was obtained of only forty-one authenticated cases of tetanus occurring subsequent to the operation. From this it is concluded that had the virus used during that time in the United States been at fault many more cases of tetanus should have followed vaccination. (4) In view of the large number of vaccinations, about 585,000, done in the United States Army and Navy, and the absence from them of a single case of tetanus following the operation, the cases of tetanus following vaccination in the country at large were evidently not due to infection contained in the virus. (5) The average period from vaccination to onset of symptoms of tetanus in 83 cases was 20·7 days, while the average mortality of 93 cases was 75·2 per cent, this being slightly higher than the mortality of cases of tetanus due to other causes with an incubation period of ten days or less. The conclusions based upon these studies were that in case of tetanus occurring 15 or 20 days subsequent to vaccination the infection is not received through the vaccine virus, but in all probability is received from outside sources about the tenth day or later after vaccination. The infection with tetanus is a contamination of the vaccination wound, such as may occur in the case of any other surgical or accidental wound not properly cared for.

Typhus Fever.—The *Canadian Medical Journal* of July last, says:—

The vigorous measures taken in Serbia against the epidemics of typhus, relapsing fever, enteric, cholera, and smallpox have met with such success that these diseases are now said to be almost stamped out. The origin of the typhus and relapsing fever infections was traced to Valjevo, where the diseases broke out among the Austrian prisoners. Hospital units were sent at once from England and from America to give assistance. On February 15, the British Army Medical Service sent out a sanitary mission under Colonel Hunter and Lieutenant-Colonel Slammers. They proceeded to Nish and at once began to disinfect the hospitals and destroy lice; wine barrels were fitted up as disinfectors and distributed through the towns and villages; inoculation against cholera was carried out, and, wherever possible, bacteriological laboratories were established and investigation made of the sources of the various epidemics. Among other units sent were the Wounded Allies' Relief Hospital, the Scottish Women's Hospital, and that sent by the Serbian Relief Fund. Apart from the wounded, there were 37,000 sick in the army, including 15,000 cases of fever, 8,000 of which were typhus, nearly 8,000 cases of relapsing fever, and 1,500 cases of enteric. In Kragujevats, a town of 20,000 inhabitants, there were 1,400 cases of typhus, and in three months 3,400 deaths had occurred. At Nish on April 5, there were 8,198 cases of typhus in hospital; on April 18, only 948

Dr. Caldwell, Hospital Administrator American Red Cross Sanitary Commission to Serbia, reports in part as follows in a paper read before the Section on Public Health and Medical Science of the Pan-American Scientific Congress, Washington, D.C., December 28, 1915:—

The epidemic of typhus exanthematicus which spread over Serbia from December, 1914, to the end of July, 1915, was, in proportion to the territory involved and the population affected, the most severe that Europe has ever experienced. The spread of this epidemic from the Danube to the Greek boundary, involving every hospital, prison camp, soldiers' barracks and almost every home, was due entirely to preventable causes, to inexcusable indifference on the part of the Serbian civil and military authorities, and to carelessness which amounted to crime.

It is impossible to tell how many were afflicted with this disease, as there are no reliable statistics available. The military reports do not include the civil population and those who were ill and died of this disease unattended by physicians where no diagnoses were made. Conservatively, one out of every five of the two and a half million population was attacked by typhus, and 135,000, including 30,000 Austrian prisoners, died of typhus during this epidemic. The hospital mortality ranged from 19 to 65 per cent. No part of the country escaped, and every city, town and village in Serbia contributed to the morbidity and to the consequent mortality.

The unreliability of the estimates in this epidemic is further increased by the fact that the Serbian physicians classified typhoid fever as typhus abdominalis, relapsing fever as typhus recurrens, and typhus fever as typhus exanthematicus, and they used the term "typhus" vicariously to indicate any one of these three diseases. Lack of physicians in hospitals and among the civil population caused the diagnosis of typhus to be made in almost any case with increase of temperature, and was given as the cause of death in many cases in which it did not exist.

The word "typhus" covered a multitude of sins in diagnosis, as well as a world of ignorance and carelessness. This does not apply, however, to the better hospitals under Serbian control, or to those managed by the American Red Cross units, or to Red Cross missions sent from other countries.

Typhus is transmitted by the louse. The body louse is completely incriminated, the head louse probably so, and the crab louse not at all. While no human experiments were made in Serbia, still the observations made in those cases of typhus occurring in hospitals and private homes gave no evidence that the disease is transmitted in any other manner than through the bite of the infected louse.

Only where the conditions for hygienic living were provided did the Serbian people escape. All classes and professions were affected. The medical profession in Serbia suffered more from the disease and consequent mortality than any other profession, in proportion to its number. Overworked and exhausted by the endless labour of caring for their sick, these civil heroes lost 160 of their number out of a total of 340 at the beginning of the war. To these self-sacrificing men and women a glory as great as any gained on the battlefield or in fire-shelled trench is due. They spared themselves not, they spared no effort and no labour, but worked until exhausted and the disease attacked them. Among our own American physicians who went to the aid of the stricken people of Serbia, five died, two of them, Drs. Donnelly and MacGruder, were members of the American Red Cross units. The nurses did not escape; they too performed heroic deeds, and in one of our Red Cross units eleven out of fourteen were stricken with typhus; happily none of them died. The physicians and nurses which other countries sent to Serbia suffered as heavily.

The conditions for the spread of the epidemic in Serbia were ideal. During the Balkan War, typhus had invaded Serbia and had never been completely eradicated. Here and there scattered through the country, especially in the northern districts, were sporadic cases, and from these foci of infection the epidemic had its origin. The people were exhausted from previous wars; they had been invaded by a large army, and the civil population had retreated as the army fell back. Belgrade in normal times has 100,000 people; during the war only 30,000 remained. The smaller cities and villages in central and southern Serbia soon became congested and overcrowded. The lack of bathing facilities in the homes of the better class of Serbians, their entire absence in the homes of the middle and poorer classes, the crowded conditions in which they were forced to live, the cold months of the winter, all favoured the intense spread of the epidemic which had started. Then came their military success. The Austrian army was thrown back through the invaded territory and across the Save river, and 70,000 Austrian prisoners were taken captive. These prisoners, starved, exhausted and vermin infested, were distributed in the little cities and villages of central and southern Serbia, thus further increasing the already overcrowded conditions.

In December, 1914, a sick soldier was sent to his home in Belgrade and was confined to his bed for three days before a physician was called and a diagnosis of his case made. His home was in one of the thickly populated quarters of Belgrade, and many of the members of his family, and his curious but well-meaning neighbours, visited him during the period of his illness. When a physician was called the patient was found to be in the fourth or fifth day of the eruptive period of typhus. No effort was made to isolate or quarantine this patient, and people were permitted to visit the patient as before until he died. Within two weeks in this particular section of the city, dozens of cases of typhus developed, and the epidemic spread through all quarters of the city.

In six months it was estimated that 7,000 cases of typhus occurred in the city of Belgrade alone, the civil hospital caring for 1,850 of them, with a mortality of 19 per cent, which was the lowest hospital mortality of which I know in any hospital in Serbia.

The treatment of typhus fever is unsatisfactory. It is supportive and symptomatic in character. The use of the serum prepared by Nicolle, or the vaccine prepared from the Plotz organism, seems to have a tendency to abort the disease, and seems to have a therapeutic value. Plenty of water should be given to the patient, and a saline infusion should be constantly at hand for use at any period, succeeding the eruptive stage and the climax of the disease. The severe emaciation which attends all these cases should be carefully managed. The diet should be carefully selected and carefully administered, and every precaution to support and stimulate the patients judiciously should be taken. The nervous and mental systems, which are very much disturbed, should be carefully cared for, and this disturbance, often continuing for six months following convalescence, should never be neglected.

The prophylactic measures which were employed in Serbia by the American Red Cross Sanitary Commission, and those which are used in the prison camps in Europe and in the quarantine stations of the countries bordering on Serbia, afford an effective prophylaxis in this disease. The value of the Plotz vaccine in immunizing against typhus infection is problematic. It probably has a value which will be fully demonstrated before typhus is eliminated from the Balkans. It was interesting to note that out of two or three hundred people not immune to typhus, who found it necessary to go to this part of Europe during the epidemic, all of whom were inoculated with the Plotz vaccine, among which number were all of the members of the American Red Cross Sanitary Commission, with but one exception, and the members of the mission which Columbia University sent to Serbia, and many others who were exposed at some time or another to a greater or less degree to the infection, not one case of typhus developed.

Amongst the methods employed to prevent the spread of this disease to neighbouring countries, Dr. Caldwell praises especially those adopted by Greece:—

> The most creditable of all, however, was that of the Greek physicians and quarantine officers and sanitarians. Greece bounds Serbia on the south, and since the beginning of the war the only communication which Serbia had with the rest of western Europe and America was through the port of Saloniki, a city of 200,000 people, with an additional 40,000 refugees of all classes, located in buildings and barracks within and about the city. Saloniki is connected with Serbia by two lines of railroads, and the old Via Romana highway affords another means of communication between Monastir and Saloniki. Hundreds of thousands of people travelled in and out of Serbia through this port, and were exposed constantly to the disease while in Serbia during the lifetime of this epidemic; yet such were the carefully executed measures established by the Greek quarantine officers and sanitarians, that less than 200 cases were reported in Saloniki and in the remaining cities of Greece while the epidemic in Serbia existed. At each point of entrance into Greece, the Greek authorities had instituted quarantine stations equipped with disinfecting plants and isolation wards, and every passenger on every train, and every one crossing the boundary line on foot or by conveyance of any kind, was stopped at these stations, examined by competent quarantine physicians, his clothing and baggage disinfected, and all suspicious cases with increase of temperature, due to any cause, held for an incubation period of fourteen days before being permitted to continue the journey into Greece.
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> Any traveller from Serbia or Saloniki, or any other city in Greece, was again examined by a physician, who issued him a card on which were blanks for the recording of temperature for the five succeeding days, and under heavy penalty for failure to carry out the instructions, the traveller was ordered to report daily to the local physician for the recording of his temperatures. In the city of Saloniki, where a majority of the cases reported made their appearance, the authorities handled the situation in a correct and scientific manner. Every case in the city with rise of temperature from any cause was reported to the health officer, who held the attending physician to a strict account for the faithful reporting of progress and diagnosis in the case.
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> In any case of doubtful diagnosis, expert professional advice from the health office was tendered without charge to the patient.
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> The greatest hotbed of typhus and other infections existing in Europe before the outbreak of the epidemic in Serbia was in Galicia and Poland, along the Russian battlefront. With the overrunning of these two immense provinces by the contending armies, the danger from the spread of the disease to the remaining parts of Europe became greater and more apparent each day. When finally the Russians were driven back beyond the borders of Galicia and Poland, and the current of travel between important points of these two provinces again began to flow, it became necessary for the German and Austrian Governments to make great preparations and take the most effective measures to prevent the ingress of infection. On this front is built what the Germans call a "louserin," which was completed at a cost of 5,000,000 marks ($1,250,000), and was paid for out of the private fortune of the German Emperor. To this great establishment all persons, of whatever age, nationality or rank in life going from Germany into Poland or Galicia, and from those provinces returning into Germany or Austria, are sent and are detained for five days, during which period they are bathed daily and their clothes disinfected in large autoclaves with each bath. At the end of the five-day period each traveller is given a personal examination, and on being found to be free from disease or vermin,

is given a certificate which permits him to continue his journey across the frontier. No exception is made in the case of any traveller, no matter what his rank or station in life may be, the Imperial family being just as amenable to the rules of this great establishment as the poorest subject of Poland or Germany.

Civic and military authorities in France are co-operating in an endeavour to prevent the spread of typhus fever from wounded soldiers and refugees who return from the trenches to the vicinity of Paris. All such persons are examined to determine whether they are carriers of lice before they are admitted to the hospital and the standard course of procedure is somewhat as follows: The patient is taken to an examining room near the entrance of the hospital. This room is well lighted and furnished in a sanitary manner. The physician in charge makes a thorough examination of all parts of the body to determine whether lice are present. The clothes are removed and placed in a covered receptacle in which they are taken to the disinfecting room. The patient is given a bath in both hot and cold water. If he is known to carry lice the hair and beard are clipped and the skin surfaces soaked in xylol of benzine. The patient then undergoes a thorough rubbing with black soap and sometimes mercurial ointment is used upon special surfaces. The patient is examined upon a portable linen litter upon which he is later removed to the hospital ward. The disinfecting room is a small close chamber and forty to fifty grams of sulphur per cubic meter are burned in the disinfection. The examining physician takes special care to avoid infection and the whole process is most carefully carried out.—*Revue D'Hygiene*, January 20.

The lessons which this epidemic teaches are particularly valuable to the sanitary world, especially to those localities which are from time to time subject to an epidemic of typhus fever. It demonstrates beyond any question of doubt that the disease can be kept out of a country instituting proper quarantine and sanitary measures, and by the proper observance of personal and community cleanliness and hygiene. It has demonstrated with equal certainty that if it should at any time secure a foothold in any locality, it can be easily limited and eradicated in a short time. With our present knowledge of the measures which control this disease, we can take a very optimistic view of the future, and assert with confidence that the epidemic of typhus which Serbia has so recently experienced is probably the last one which will occur in Europe, unless conditions favouring an epidemic are worse than ever before existing in the history of the continent.

At a meeting of the New York Pathological Society held on Wednesday, April 14, Dr. Harry Plotz, of Mount Sinai Hospital announced the isolation of a gram-positive pleomorphic anaerobic bacillus from the blood of 50 per cent of a series of cases of epidemic and endemic typhus fever (Brill's Disease). The bacilli isolated from both types of the disease are identical in their cultural and serum reactions. The bacilli are found only in small numbers in the blood, but have been isolated during the febrile period and as long as thirty-six hours after the crisis. As the disease progresses the agglutination and the complement fixation reactions become positive using the bacilli or extracts in the tests. Because of the shortness of the disease, these reactions are positive more often during convalescence. When cultures are injected into guinea-pigs or monkeys, they cause a febrile reaction similar to that obtained by the injection of blood from a case of typhus fever. The bacilli in cultures quickly lose their virulence. Whether the injection of cultures will protect animals against the inoculation of virulent blood was not stated. The adoption of preventive inoculation with vaccines made from the cultures depends on such immunity tests in susceptible animals.

While a few points need further study the evidence brought forward by Dr. Plotz and his colleagues at Mount Sinai Hospital, indicate that the bacillus discovered is the cause of typhus fever.

In the opinion of Dr. Caldwell, as quoted above, typhus is transmitted by the louse. This view is generally adopted by recent writers upon this disease. Whilst fully admitting this, I am not as yet prepared entirely to exclude other sources of transmission, such as the breath and other emanations of the patient. And this for two reasons: In the first place in what has been written of the habits of the body louse it is described as clinging closely to the under-clothes. If this be so it seems difficult to account for the rapid spread of an epidemic of this disease by a migration of the louse from body to body. Then in this report of Dr. Caldwell's he tells us of the coming of a sick soldier to Belgrade, and that within two weeks dozens of cases developed, and that in six months 7,000 cases were estimated to be present. Could that well be explained by the migration of infected lice alone? My second reason is that during the thirty-two years I served as a quarantine officer at the St. Lawrence quarantine, 1866-98, I saw a great many cases of typhus fever. It was frequent amongst the European immigrants coming to this country in the small sailing ships in the earlier of those years. Ten members of our staff contracted the disease. Two died of it, a nurse and a hospital orderly. I was one of the ten who took it, and I certainly was not conscious of the presence of any lice. And the cleanly habits of the other members of the staff who fell ill with the disease render it unlikely that they could be attacked by vermin. I have always considered that we contracted the disease from the breath of the patients.

Leprosy.—There are at present in the lazaretto at Tracadie, N.B., fifteen leper patients, seven males and eight females. This is the smallest number for some years. There were two deaths during the year, and one new patient was admitted. Eleven are of French-Canadian, one of English, one of Icelandic, one of Russian and one of Syrian origin. The Syrian patient was sent to the lazaretto from Regina by the Immigration Department, pending his deportation, as he has not been three years in Canada. Two of the patients, a woman of 61, and a man of 43, reported as much improved last year, are now practically well. The two former inmates discharged, apparently cured, in 1912, remain in good health. Chaulmoogra oil, in the various forms, is still found to be the most satisfactory treatment.

The leper lazaretto at Darcy island, British Columbia, is in good repair. It has not been in use this year.

Dr. Mercier devoted his last course of Fitzpatrick Lectures before the Royal College of Physicians of London to leper houses and mediaeval hospitals. He has published the two lectures in a pamphlet which contains a great deal of information and some interesting discussion.

Leprosy existed in England in Saxon times, and the oldest leper house, still existing as a charity, appears to be St. Oswald's Hospital at Worcester, founded by Bishop Oswald in 992. Dr. Mercier thinks, judging from the number of leper houses founded, that the disease reached its height in the second half of the twelfth century. In the first half of that century there were founded at least 46 hospitals, of which 24 were leper houses; in the following fifty years, at least 120, of which 56 were for lepers; in the thirteenth century, 240 hospitals, of which 75 were leper houses; and in the first half of the fourteenth century, 111, of which 42 were leper houses. In that century leprosy began to decline—a fact which Dr. Mercier associates with the Black Death, which swept the country in 1348-9. With the disappearance of leprosy the endowments of the leper houses either disappeared or were devoted to other charitable purposes. One of the oldest leper houses in England, the fabric of which still exists and is used for charitable purposes, is the Hospital of St. Margaret, Monkton, just outside Taunton on the London road. It is a long, low narrow structure, consisting of seven distinct tenements, each with a staircase communicating with the room above; the walls are of stone, faced, for the most part, with plaster, and have a high-pitched thatched roof.

The New York Weekly Bulletin 30th October, 1915, says:—

The Sanitary Code requires physicians as well as persons in charge of hospitals to report certain infectious diseases and specifically mentions leprosy.

The attitude of the Department of Health towards leprosy is reflected in the recommendations of a committee of the city's leading dermatologists recently consulted by the Department. The recommendations are as follows:—

"Leprosy being an infectious disease, all cases should be reported to and registered at the Department of Health.

"Every case of leprosy should be investigated by a competent diagnostician with the intention of confirming diagnosis (except when reported by a recognized authority on dermatology, who will secure observance of all precautions). The diagnostician should examine all persons exposed and secure the necessary information required in such cases.

"Re-examination should be made for patients and members of household from time to time for a number of years.

"Bacteriological examinations for the bacillus of leprosy should be made in every case when necessary for diagnosis. Research studies on leprosy should be included in the work.

"Patients with suitable home surroundings and where hygienic precautions are observed may be permitted to remain at their homes.

"All cases of leprosy should be supervised from time to time with regard to the observance of regulations and the possibilities of spreading the disease.

"Cases of leprosy unsuited for home care, either because of the character of the case, improper surroundings, or poverty, should be removed to a hospital and detained as long as circumstances warrant.

"After death or removal of a case of leprosy the premises and all infected articles should be disinfected."

It is estimated that there are 238 known lepers in the United States. It is an accepted fact among physicians that the danger of transmitting leprosy in this climate is small, though there appears to be some danger in the South. When the leper has no open lesions and no discharge from the nose it is safe for him to be at large.

A leper with open lesions, if careful, and if the home conditions are suitable, may be safely segregated in the home. This will avoid the separation of members of a family and its attending unpleasantness.

While the bacilli are not found in the nasal cavities early in the disease, they can occasionally be detected here first. Cases of leprosy with bacilli in the nose will, of course, be observed most carefully.

Vermin, it is thought, plays no unimportant part in the transmission of leprosy. Bed bugs and body lice should therefore be carefully sought for and exterminated.

The Department of Health maintains a list of cases of leprosy. Of the patients at present known to the Department, all but two are under institutional care, and these two cases are under adequate control.

In order to make this list as complete as possible the Department of Health would like to have all cases of leprosy again reported, giving the desired particulars.

The co-operation of managers and superintendents of hospitals and institutions and physicians is earnestly desired to make our records as accurate and up to date as possible. Cards for reporting will be furnished free of charge on request.

Fraser and Fletcher, claiming a discrepancy in the interpretation of their article: "*The Bacillus Leprœ*: Has It Been Cultivated?" (*Lancet*, vol. II, 1913), point out that the diphtheroid bacillus found in certain tubes on which pieces of leprous nodules had been planted is still considered as a contamination and cite occurrences of diphtheroids in one or two tubes out of thirty which were probably contaminations resulting from the use of disinfectants. Now, with improved technique, the authors have been unable to secure any cultures whatsoever and still adhere to the opinion that there is no evidence of the *Bacillus leprœ* being cultivated artificially.

Among the general public there still remains a great fear of the contagiousness of leprosy, evidently issuing from the erroneous interpretation of certain passages of the Old Testament, and the natural repulsion toward the disease. There is an evident desire to get them quickly gone to a remote place with a wish that they may not be overhasty in their return. As a matter of fact, leprosy is very reluctantly contagious, and must require very special favouring circumstances in order for it "to take." A very modest degree of cleanliness hinders its transmission. As soon as a country becomes well to do and adopts the daily tidiness incident to modern civilized life, leprosy dies out. Although, therefore, the Biblical view of the highly contagious nature of leprosy undoubtedly aided in stamping out the epidemic of the middle ages, in modern life it works an unnecessary hardship on the afflicted, and should give place to a more reasonable attitude, agreeing with the real facts in the case.

Beriberi.—Major Chamberlain, Medical Corps, United States Army, published last April an interesting article on this disease amongst Philippine Scouts; he says:—

> Among investigators in the Orient a large majority, I believe, now accept the tenet that beriberi is the result of subsisting on a diet deficient in certain substances, termed "vitamins," which are essential for the normal functioning of the nervous system. There are, however, some authorities who still question the deficiency theory, and who maintain that beriberi is probably of an infectious nature. In view of this skepticism it seems worth while that the experiences of the United States army with beriberi among its Filipino (native) troops should again be brought to notice at this time. I feel that I may do this, first, because I was in charge of the beriberi work in Manila from 1910 to 1912, when the disease was eradicated from the native troops, and am therefore familiar with the circumstances attending this change; secondly, it may be done now because at the present date (January, 1915) there has elapsed a period of time sufficient to render it extremely improbable that the abatement of beriberi in 1910 was a temporary remission merely coincident with, but not due to, a change in dietary.[1]
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> The War Department of the United States maintains in the Philippines a body of native troops officially designated as the "Philippine Scouts." The commissioned officers are white Americans. The enlisted men are Filipinos belonging to various tribes and gathered from all parts of the archipelago. There are about 5,200 men in the scouts, and the companies are located in numerous garrisons throughout nearly all portions of the Philippine Islands. Organizations are frequently changed from one section of the archipelago to another, and the contact between the scout soldier and the adjacent population is close and constant. Beriberi is at all times present among the civilian natives, and no effort is made to isolate the sick. Until the calendar year 1910, beriberi was a scourge to the Philippine Scouts. The total annual admissions from this cause ranged from a minimum of 115 to a maximum of 618, and there was a considerable death rate and many discharges from the service for permanent disability. In spite of six years of vigorous effort to suppress the disease, a climax was reached in 1908 and 1909, when the total admissions for

beriberi reached 618 and 558, respectively. During 1910 certain changes in the dietary of the native soldiers were inaugurated, and in that year the beriberi admissions dropped to fifty. In 1911 there were three admissions, in 1912 two, in 1913 none and in 1914 only one up to July 30, when last reports were received.

During the years prior to 1910, beriberi among the scouts had been combated mainly on the assumption that the disease was infectious.

The opponents of the deficiency theory of beriberi have perhaps had their case strengthened by the fact that the majority of the advocates of the theory have carried out their practical work for the most part in the orient, and have dwelt almost entirely on polished rice as a factor in the etiology of the disease. In the orient rice is, indeed, the factor of importance. In other lands, where rice is little used, the case is quite different. The two following points have received insufficient attention from certain writers;

1. *Many articles of diet, other than rice, are relatively deficient in neuritis preventing vitamins.* Among these may be mentioned fine wheat flour, wheat bread, macaroni, "ship biscuit," sago, hominy, cornstarch, various breakfast foods, and possibly potatoes, exclusive use of these substances leads to polyneuritis gallinarum.

2. *Exposing food to a temperature above a certain point decomposes the neuritis-preventing vitamins present.* It was first shown by Eijkman, and has been abundantly confirmed, that a temperature of 120 C. destroyed some substance in undermilled rice, barley and rye, with the result that multiple neuritis developed when these foodstuffs were used as exclusive articles of diet for fowls. In a neuritis-preventing extract of rice polishings it was found in Manila that boiling, when prolonged for many hours, destroyed some or all of the vitamins present. It is probable that the process of sterilizing necessary for the preservation of canned goods, such as meat, beans and peas, destroys the beriberi-preventing elements originally present. It is well known that the vitamin necessary to prevent infantile scorbutus is destroyed by a temperature at or even below the boiling point, but the substances which avert beriberi appear to be somewhat more resistant to heat.

Therefore when confronted by a syndrome suggesting beriberi it is unsafe to assume that the condition is not due to a vitamin starvation until the dietary has been studied most carefully, and from a point of view entirely different from that occupied a few years ago. Mere dependence on proper amounts of fats, proteins, carbohydrates and salts is not sufficient. One must learn, by animal experiments if necessary, whether the essential components of the ration contain vitamins in quantities adequate to maintain nerve nutrition. It must further be determined whether or not vitamins, originally present in the various articles, are being in part or in whole decomposed by the culinary processes employed. Attention to these points will probably explain the occasional outbreaks of beriberi in lands where the disease is not endemic and where rice is not a food staple.

Furthermore, it is important to remember that beef (and possibly many other articles not yet studied) contains enough vitamins to prevent the development of neuritis, when fed exclusively to fowls, yet the quantity present is relatively small when compared with the amount found in beans, peas, mangos, barley, peanuts, yeast, or the bran (polishings) of rice or wheat. Therefore if the chief components of the ration are greatly deficient in neuritis-preventing substances the addition to the dietary of a small amount of meat will not supply sufficient vitamin to prevent the onset of disease.

Dr. Joseph A. Andrews, stationed at Indian Harbor, Labrador, for the Grenfell Mission, who returned recently is reported to have found the natives of

that place suffering from beriberi as a consequence of living chiefly on white bread. When they substituted brown or black bread the epidemic ceased.

Enteric Fever.—The *British Medical Journal* in an article dated January 1, 1916, on the results of anti-typhoid vaccination in the French Army states:—

Dr. Jules Courtmont, who is in charge of the isolation hospitals of the XIV District (French military administration), has issued an interesting report on the results of antityphoid vaccination from August 2, 1914, to July 1, 1915. Haemoculture was employed for diagnostic purposes wherever possible, as it was recognized to be the only really trustworthy guide to the nature of the infection. The cases observed, in fact, included a large proportion of infections by paratyphoid organisms.

The total number of admissions of patients diagnosed to be suffering from typhoid fever was 1,347; of this number 891 had not been vaccinated, and 256 had been inoculated from one to four times with Vincent's non-polyvalent vaccine; of the 891 unvaccinated, 506 came from the front and 385 from the XIV district; of the 256 vaccinated, 96 came from the front and 160 from the XIV district.

The number of deaths among the 891 unvaccinated was 155 (17·4 per cent); of these, 80 were from the front and 75 from the district. There were only 8 deaths among the 256 vaccinated (6 from the front and 2 from the district). If the subjects who received the regulation four inoculations were accepted as vaccinated the percentage of deaths would only be 1·9. The following is the complete table:—

Admissions.	Total.	Front.	XIV District.	Slight Fever.	Medium Fever.	Grave Fever.	Deaths.
1 injection	51	19	32	35	12	4	3
2 injections	50	25	25	36	10	4	2
3 injections	39	20	19	24	13	2	1
4 injections	116	32	84	85	29	2	2
Total	256	96	160	180	64	12	8

This gives:—

	Deaths.
Non-vaccinated	17·4 per cent.
Vaccinated—	
1 injection	6·0 "
2 injections	4·0 "
3 "	2·5 "
4 "	1·9 "

From the bacteriological point of view the proportion of paratyphoid was high. Haemoculture was used in 100 cases of the vaccinated, and proved negative in 25 and positive in 75. Of the 75 positive cases, 3 yielded Eberth's bacillus (2 of these had only had a single injection, and of these 1 died, the third had 2 injections); 71 yielded paratyphoid B and 1 paratyphoid A. Of the 116 infected patients who had received the four injections 63 showed paratyphoid B.

Antityphoid vaccination is thus shown to be unquestionably active and efficacious, but these figures point to the desirability of making use of a polyvalent vaccine (Eberth, paratyphoid A and B).

The *Canadian Public Health Journal* has the following:—

> It is impossible to give too much publicity to the wonderful work done by the R.A.M.C., not only in fighting disease, but also in the carrying out of preventive measures. In two instances last week Mr. Tennant gave replies to questions upon the health of the forces, and both were eminently satisfactory. With regard to the troops on Salisbury Plain, he said: The annual ratios per 1,000 are, during the period September 1 to December 31: Admissions, 325·4; deaths, 1·88. Both these ratios are lower than those for peace time. With such a record he was perfectly justified in refusing the request for a committee to inquire "into the health of the troops." The other question was the perennial one on enteric fever and inoculation. The reply was as follows: "In the period from the commencement of hostilities to November 10, 1,365 cases of enteric fever were reported as having occurred amongst the British troops in France and Belgium; of these 1,150 cases have been definitely diagnosed after bacteriological examination. In 570 cases where there had been inoculation there were 35 deaths, and in 571 cases where there had not been inoculation there were 115 deaths. In the United Kingdom from August 1, 1914, to October 30, 1915, 540 cases of enteric fever were reported and 87 deaths; 39 per cent of these cases occurred in men who had not been inoculated, but I cannot say how the deaths were distributed amongst the inoculated and uninoculated respectively. For paratyphoid no system of inoculation has yet been adopted." This evidence is absolutely conclusive to all, except a few cranks. But "if an angel from heaven came" they would still be unconvinced.

The Research Defence Society issued a leaflet on protection against typhoid fever about fifteen months ago; it has now added a statement, dated January, 1915, in which it reported as follows:

Among our Expeditionary Force in France and Belgium about 95 per cent have been protected against typhoid fever, the annual average being about 90 per cent.

The annual admission ratio per 1,000 is more than nine times greater among the non-protected than among the protected. Among the non-protected it is 9·1 per 1,000. Among the protected it is 1 per 1,000. The death rate is thirty-one times greater. Among the non-protected it is 1·84 per 1,000. Among the protected it is 0·66 per 1,000.

The figures for Gallipoli have not yet been thoroughly analysed and criticised, but they leave no room to doubt the value of the protective treatment.

The addendum also deals with the suggestion that the statistics are worthless because typhoid fever and para-typhoid fever are often confused. The leaflet points out that this suggestion is false.

If the cases of paratyphoid fever are added to the cases of typhoid fever the the annual admission ratio among the non-protected is 11.3 per 1,000. Among the protected it is 3 per 1,000. The death ratio among the non-protected is 1·90 per 1,000. Among the protected it is 0·09 per 1,000.

Trench Fever.—A new infectious disease? It would be difficult to make the well-informed clinician believe that he could encounter a number of cases of disease presenting the same syndrome which he would be unable to identify and which, moreover, could not be classified even when the best professional advice was secured. And yet this is happening now among the soldiers in northern France, according to the *British Medical Journal* for July 17. For the past three months there have been observed numerous cases of a disorder somewhat like subacute nephritis in its manifestations. Dropsy is sometimes present and the urine contains albumen and casts. It does not appear to be infectious or contagious and the medical authorities have been unable as yet to determine what are the predisposing causes. Naturally there

has been a great deal of theorizing. One explanation was that it was an Oriental disease, something on the order of beriberi, but this theory was discounted by the fact that it was not prevalent among the Indian troops. Moreover, as has been proven by Heiser and others in the Philippines, beriberi is dietetic in origin and the soldiers suffering from this strange malady have been shown to have had the same fare as the others. A suggestion which obtained some favour for a time was that these were cases of unrecognized scarlatina, but this has since been disproved. Some observers hold that it is an auto-intoxication due to the intestinal stasis which necessarily develops when men are subjected to prolonged periods of duty in the trenches and elsewhere. Some authorities saw features in it analogous to forms of metallic poisoning, and with this idea in view have made searching analyses of the food, water, and the patients' urine. Whatever may be the causes of this new disease, it does not seem to be very serious except in its temporarily incapacitating effects, and it is probable that a further period of observation will clear up its etiology.

Captain McNee and Lieutenant Renshaw, with the clinical assistance of Captain Brunt, all of the R.A.M.C., have published an article on "Trench Fever" in the *British Medical Journal* of February 12, 1916:—

> During the whole time that the army has been in Flanders cases of short fever have continually occurred.
>
> In a comparatively small number there has been a little bronchitis, or some diarrhœa, or tenderness of the muscles or nerves in limited situations, these have been called bronchitis, or influenza, enteritis, colitis, myalgia, and neuritis. But, as a rule, the symptoms have not included more than the general aches and pains which are the common denominator of all fevers. The patients have been very slightly ill, and except in a small number of cases have quickly returned to duty.
>
> It has been very difficult to know what to call these cases. They have been sent in as influenza, myalgia, neuritis, pyrexia of unknown origin, and even as rheumatic fever. Of genuine rheumatic fever I have seen only five instances. Its absence has been one of the most striking things in the campaign, and effectually disposes of any connection between this fever and wet or cold.
>
> These undetermined fevers have from the first been the hunting ground of the bacteriologists, who with their laboratories are disposed in a line along the front, together with a few in special places further back. The bases have, of course, their own bacteriologists, and are not now under consideration.
>
> The diagnosis of the enteric group of fevers is of such consequence to an army that the first task of the bacteriologist is always to exclude them. In consequence these cases of pyrexia have throughout been examined from that point of view. As they were usually seen quite early in the disease cultivation of the excreta and agglutination tests have also been carried out in many hundreds of cases. In any case where either abdominal symptoms, or a dry tongue, or an enlarged spleen, or suspicious spots, gave clinical grounds for suspecting an enteric fever, the patient was sent down as "suspected typhoid" even if this had been done we were left with a large mass of cases in which neither the clinical nor the bacteriological evidence afforded any ground for this diagnosis.
>
> In the early part of the summer Major J. H. P. Graham called my attention to a type of fever characterized by two bouts of pyrexia separated by a normal interval. He afterwards published two cases of the kind. About the same time Captain Wells reported several similar cases. Colonel Sir William Leishman came round with me to see these cases. Their resemblance to sandfly fever and also to dengue struck those who had had experience in these fevers,

but there were several points which effectually disproved identity. Other officers were good enough to look out for similar cases. I should like especially to thank Captain Stirling and Captain Bolus for their help. In the *Lancet* of November 20, 1915, appeared a paper by Captain G. H. Hunt and Major A. C. Rankin, describing 30 cases and mentioning for the first time the name "trench fever," which by this time has come into common use. From these papers and from the paper now published I think we can say that from the mass of cases of obscure fevers one type has been isolated in which the clinical symptoms, the course, and to a certain extent the pathology, have been established. We are, however, still ignorant both of the nature of the infection and of the way in which it is introduced into the human system. It is still occurring, and this renders the agency of a flying insect improbable, though I was shown *A. maculipennis* only two days ago (January 29).

The present paper needs no praise of mine, but I may say that I have followed the work throughout with the deepest interest.

The cases of the type to be described first began to be recognized in this laboratory area about the beginning of July, 1915, although, on considering the matter later, it was certain that a small number of men seen during the previous month had suffered from the same disease.

It will be of interest to give an account of how our attention was drawn to the condition in the first place. In the first few days of July a number of men, about twenty in all, were sent in to an isolation hospital labelled "suspected enteric." These men all belonged to a division which had recently arrived in the area, and all had headache and varying degrees of pyrexia, in addition to other symptoms to which less attention was paid at the time. Since it was known that during the previous two months cases of paratyphoid B had occurred both in the civilian population and in the division then in occupation of the area, it was at first thought that these new cases might be of the same nature. Blood cultures were made in bile salt broth in the usual way, and thereafter the cases were immediately transferred to a stationary hospital further from the front. These blood cultures proved one and all sterile. The men reached the stationary hospital within a week of the onset of the febrile symptoms, but, on admission there, their temperatures were either found normal or fell to normal within a day or two, leaving the patients apparently quite well. As the cases did not resemble clinically any of the enteric group, an inquiry was at once addressed to this laboratory to find out the results of the blood examinations. The bacteriological and clinical findings seemed to exclude the enteric group, although the possibility of previous inoculation modifying the course of genuine enteric had still to be considered at the time.

Cases of the same kind occurred immediately afterwards, and on these being watched it was found that the fever ceased after five to eight days. These men were examined carefully, and other symptoms recognized, which will be described in full later on. None of these early cases, however, remained under observation for long after the temperature fell to normal, so that their subsequent history is unknown. The point of this remark will be seen when the course of cases watched over a long period is considered.

As has been already indicated, all the early cases remained under suspicion of belonging in some sort of way to the enteric group. As more and more cases were observed, however, each with a similar and constant group of symptoms, the disease soon became recognizable as a definite clinical entity, and early became known to officers and men under the name "trench fever."

Since attention was attracted to the condition, great numbers of cases have come under observation. During the months of July, August, and Septem-

ber, in fact, it was impossible to visit three or four field ambulances on any day without seeing at least half a dozen fresh cases.

During August and September arrangements were made, especially at one casualty clearing station, to keep a series of cases under constant observation for some weeks, and it is as a result of this that we have been able to carry out most of the clinical, pathological, and experimental work detailed below.

1. The disease is a definite entity, and of infective nature, as is proved by its ready transmission from one person to another by the blood.

2. There are two clinical types of the disease: (*a*) A short fever of about a week's duration, followed frequently after a few days by a short single relapse: (*b*) a longer illness characterized above all by the number, sharpness, and periodicity of the relapses.

3. The symptoms of both types are clinically identical, the most constant and characteristic being headache, and pain in the legs and small of the back.

4. The two types described are, in our opinion, merely varieties of one and the same disease. In addition to the identity of symptoms, the experimental evidence for this is strong, a typical "short" variety having been shown capable of giving rise to a typical "long" one.

5. The incubation period varies, possibly with the dose of the infective virus introduced. The shortest incubation period in our experimental transmissions was six days, and the longest twenty-two days.

6. The disease is transmissible in every case by the whole blood, whether injected intravenously or intramuscularly.

7. The disease is not transmissible by the serum. In the one instance in which the serum proved infective, haemolysis of corpuscles had occurred before injection.

8. It follows as a corollary to the preceding statement that the virus is not a "filter passer" in the serum, as we thought from analogy that it might be. All our experiments with filtered serum were negative.

9. The plasma was infective in one experiment, but haemolysis of red cells had occurred, so that the plasma was haemoglobin tinted. The filtered plasma in another test was not infective.

10. The above results seemed to point to the virus being contained *within the blood corpuscles themselves,* whether leucocytes or red cells.

11. Blood corpuscles, after washing five times in saline to remove the plasma, were still found to be infective. This further supports our view that the virus is intracorpuscular.

12. Very many blood films at all stages of the disease have been examined without a parasite being detected. The blood has been examined fresh, under dark-ground illumination, and dried films have been stained in varying ways, without result.

13. Blood corpuscles were broken down, and the haemoglobin-tinted fluid passed through a filter in an attempt to prove the virus an ultra-miscroscopic one confined to the corpuscles. The fluid when injected, however, was not found to be infective.

14. The only constant morphological change in the blood is the presence of punctate basophilia. This was so marked in some cases as to require very careful investigation to differentiate it from an intracellular parasite. The blood counts, differential and ordinary, did not yield any important results.

15. As regards the means by which the disease is transmitted in nature we have as yet no evidence to offer. The fact that only two classes of men are affected—those from the trench zone and men of the Royal Army Medical Corps—is, however, suggestive. The disease is either contagious from man to man or, what seems much more likely, is carried by one of the common

flies or paracites found in the trenches. During the past summer lice, mosquitoes, midges, and flies of other kinds have all been common in the Flanders war zone.

International Frontier Quarantine.—At the date of the last annual report this inspection was in force, on account of smallpox in North Dakota and Minnesota, U.S.A., at Gretna, Man., and Emo, Fort Francis and Rainy River, Ont. It was raised by you at all four places on June 15.

Electrolytic Hypochloride for Hospital Ships.—Last month a report to the Medical Research Committee on the use of sodium hypochlorite prepared by the electrolysis of sea water for disinfecting and antiseptic purposes on shipboard, especially in hospital ships, has been made by Drs. H. D. Dakin and H.G. Carlisle, and will be read with much interest, because it is important both in its scientific and practical aspects. The report mentions the well-known Hermite process for the sterilization of sewage by electrolytic hypochlorite, introduced about 1893, and the use of electrolytic hypochloride for general disinfection by several sanitary authorities, notably at Poplar, and the valuable results obtained through its use in the plague epidemic in Glasgow in 1901.

This Hermite process was reported on by me in my annual report October 31, 1894, to the then Minister of Agriculture, with a recommendation for its use on seagoing passenger vessels.

Circulars.—Circular letters were issued from time to time to your different officers, calling their attention to the various matters during the year connected with the appearances of epidemic diseases abroad.

Bulletins, etc., received.—The weekly Public Health Reports of the United States Public Health Service have been regularly received and are of great value, as are also the monthly bulletin from provincial, state, and municipal boards of health in Canada, the United States, and other countries. The bulletins of the International Office of Public Health, Paris, and of the Sleeping Sickness Bureau, London, have been regularly received throughout the year, and in both cases spare copies have been distributed to the provincial boards of health.

Official Visits, Inspection, etc.—On the 19th June last I left, by your instruction, to inspect on the Atlantic coast. I visited the quarantine station at Grosse Isle, Que.; the leper lazaretto at Tracadie, N.B.; the quarantine stations at Chatham and St. John, N.B., Digby, Halifax, Sydney, and Louisburg, N.S., Charlottetown and Summerside, P.E.I.; Rimouski, Que.; and made a second inspection at Grosse Isle, Que., in connection with the improvements being carried on there.

On August 17, I left for the Pacific coast. I inspected at Vancouver, Victoria, William Head, and Prince Rupert, and the leper lazaretto at Darcy island.

No meeting of the Canadian Medical Association was held this year, owing to the absence of so many medical men on military duty.

The Canadian Public Health Association held its annual meeting in Toronto on the 3rd and 4th of September.

I had the honour to represent you at the annual meeting of the American Public Health Association held in Rochester, N.Y., September 6 to 10. This association includes the United States of America, the Dominion of Canada, the Republic of Mexico, and the Republic of Cuba. The attendance including the New York State Sanitary Officers' Association, was close to 2,000.

An address of welcome was given by Governor Whitman of New York state. Of this address a recent writer says:—

> As a significant sign of the times we might well refer to the address of Governor Whitman of New York state. It represented the attitude of a broad-minded state executive toward the public health movement of to-day.

Governor Whitman pointed out that "public health is only one of many fields of public work which are growing and expanding year by year, and demanding constantly larger appropriations which they are able to justify by valid evidence of excellent results attained. Meanwhile, city and state debts and tax rates are mounting to an unprecedented degree." Yet he concluded that "public health is one of the social activities of the state whose development should be curtailed only in the very last necessity." After a keen and incisive review of the more important phases of the public health campaign—in relation to infant mortality, communicable diseases, tuberculosis and the diseases of later life—Governor Whitman points out as a justification of public health work, even on economic grounds, that the reduction in the New York state death-rate of 0·4 per 1,000 in 1914, as compared to 1913, corresponds to a saving of 4,000 lives which, taking the ordinary estimate of $5,000 for the average value of a human life, "means an economic saving of $20,000,000 due to progressive health work in a single year."

Most inspiring of all is the Governor's attitude toward the integrity of the public health service and its freedom from political control.

Finally, those who have watched the admirable results of the system of state health organization through a corps of district sanitary supervisors in force for two years in New York state will welcome the Governor's cordial approval of the plan as "most important and beneficial to the local communities." He adds, "I sincerely hope that some means may be found by which the services of these physicians may be retained, and feel confident that next year, when the members of the legislature are made fully acquainted with the facts as to the value of these services, funds will be provided for their continuance. I shall use my influence to attain this end, for, while rigid economy in the administration of the finances of the state is essential, savings in expenditure attained through decreased efficiency in health work are not only unwise but resolve themselves, in the end, into irreparable waste of the most valuable resources of the Commonwealth."

At this meeting of the Association, of which I have been a member since 1887, and of which I am a past-president, I had the honour to be elected an honorary member. Others who received a like honour at the same time were Dr. Stephen Smith, the first president of the Association in 1872, 1873 and 1874; General Gorgas of Panama Canal fame, General Sternberg, the Bacteriologist, and Dr. Henry Holton of Vermont.

On the 6th of this month I was delegated by you to attend a meeting at Washington, D.C., of the International Joint Commission of the Pollution of Boundary Waters. The meetings were held on the 8th and 9th.

The *Journal of the American Medical Association* speaks of this meeting as follows:—

The International Joint Commission held a meeting at Washington, D.C., March 8 and 9, to consider the final report on the engineering investigations which have been made during the past year relative to the pollution of boundary waters. The commission is composed of three members from the Dominion of Canada and three from the United States. It is formed as a permanent tribunal for the adjustment of boundary matters between the two countries under the terms of the treaty of January 11, 1909, between the United States and Great Britain. The commission has from time to time considered various matters relative to water power, water diversion and obstruction to navigation, including the adjustment and control of lake levels, and has also during the past three years been considering the matter of pollution of boundary waters.

The treaty referred to states that "the waters therein defined as boundary waters and the waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other." In 1913 a reference comprising two

branches was submitted to this commission whereby it was asked to determine in brief, first, whether the treaty obligations were being violated and if so, at what points and to what extent and by what causes, and, secondly, what remedies would be feasible and advisable under the circumstances. The first branch of the reference was answered by the commission in a progress report dated January 16, 1914, embodying the report of the sanitary experts. Of the latter, Dr. Allan J. McLaughlin, United States Public Health Service, had been appointed chief sanitary expert, and with him was associated Drs. J. W. McCullough and John A. Amyot, and Fred A. Dallyn, all of the Provincial Board of Health of Ontario. In brief, it was found that the provisions of the treaty were seriously violated, and that public health was endangered at many points, particularly on the boundary rivers. The waters of the Great Lakes themselves, from an international standpoint, were found to be satisfactorily pure, existing pollution being confined to the shore fronts.

The second branch of the reference was essentially engineering, and its solution was placed in the hands of Prof. Earl B. Phelps as consulting sanitary engineer. Engineering offices were opened at Detroit and Buffalo in charge of Mr. Henry C. McRae and Mr. Frank C. Tolles, respectively, and during the past year comprehensive drainage and disposal schemes have been developed for these two cities and for all the smaller communities on both sides of the St. Clair, Detroit and Niagara rivers. The final report on this work has just been completed, and is now in course of publication. The meeting of the commission referred to was for the purpose of hearing and discussing this report. The general conclusions and recommendations of the report have not been accepted by the commission, and will not be until all the interested communities, as well as the state and federal representatives of the two governments have had opportunity to review the findings and to be heard relative thereto.

Not only does this international commission represent a unique and, by contrast with other existing methods, an eminently satisfactory method of dealing with international affairs, but also the findings of the commission in the particular case in question promise to point the way toward a more systematic and consistent policy of the control of stream pollution than has heretofore been possible under existing methods of state control.

Changes in Medical Staff (temporary).—With your approval Dr. V. N. Mackay, Assistant Medical Officer and Bacteriologist of the Halifax Quarantine Service, and Dr. Warwick, assistant Medical Officer of the St. John, N.B., Quarantine Service were given leave of absence to join the Military Medical Service for active duty. The place of Dr. Mackay has been filled by the temporary appointment of Dr. A. E. Blackett of Halifax. Dr. Warwick's place was filled for the winter by the transfer to St. John of Dr. Heagerty from the Grosse Isle Station, where navigation was temporarily suspended.

Stations, etc.—Grosse Isle, Que.—Vessels inspected 345, being a decrease of 40 as compared with last year, and at the substation of Rimouski 40, being a decrease of 29 from last year's figures. Persons inspected at Grosse Isle 27,667, at Rimouski 25,669, a total of 53,336, as against 149,598 last year, a decrease of 96,262, due to the lessened immigration owing to the war.

Infectious disease was reported or discovered on 23 occasions. The cases and contacts were landed at Grosse Isle.

Seventy-six persons were admitted to hospital. The diseases were measles, varicella, mumps, enteric fever, and diphtheria. No one of these cases proved fatal. The admission to hospital in 1914 were 502. In 1913 they were 1,780. With the large immigration to be expected after the war, the admissions may again well reach, or exceed the figure of 1913. It is therefore of urgent importance that the building of the new hospital which has been begun be pushed rapidly to its completion.

Halifax, N.S.—Vessels inspected 274. Persons inspected 19,357. This was 49,471 less than in the preceding year. No quarantinable disease presented itself, and there was no admission to hospital for such disease.

St. John, N.B.—Vessels inspected 272. Persons inspected 23,877. Admissions to hospital 3; one case each of diphtheria, scarlet fever and enteric fever.

The pressing need of a deep water wharf makes itself more and more felt as each year's dredging of the harbour increases the rapidity and strength of the current. It is extremely dangerous to lighter to and from the quarantine boat in rough weather. Several times this winter a boat accident has been narrowly escaped. Apart from the risk to the staff an accident in landing passengers would be an extremely serious matter.

Chatham, N.B.—Vessels inspected 109. Persons inspected 1,143. No quarantinable disease.

Digby, N.S.—No quarantinable vessels entered the Annapolis Basin this year.

Sydney, N.S.—Vessels inspected 248. Persons inspected 11,033. No quarantinable disease.

Louisburg, N.S.—Vessels inspected 112. Persons inspected 2,985. No quarantinable disease.

Charlottetown, P.E.I.—Vessels inspected, 8. Persons inspected, 91. No quarantinable disease.

Summerside, P.E.I.—No quarantinable vessels entered this port during the year.

William Head, B.C.—Vessels inspected 174. Persons inspected 26,754. The ss. "*Titan*" is in quarantine with a case of smallpox. Her passengers 74 in number have been landed. The ship is from Yokohama.

An improved water supply is most pressingly required. It is quite inadequate for domestic purposes, and still more so in case of a fire such as so closely threatened the station last summer.

Victoria, B.C.—No quarantinable vessels entered this port during the year.

Vancouver, B.C.—No quarantinable vessels entered this port during the year.

Prince Rupert, B.C.—No quarantinable disease. A fresh-water supply is pressingly needed. Also a disinfection building. There is, as yet no provision made for handling an infected vessel at this port.

Military occupation.—In order to help to give prominent positions in the harbours of Halifax and St. John to the militia defending the country, you allowed the military authorities to occupy with troops all the buildings at the quarantine stations of Lawlors Island and Partridge Island that could possibly be spared without entirely paralysing those stations for quarantine service.

Tracadie Leper Lazaretto, N.B.—Patients at present 15. Seven males and eight females. There were two deaths during the year, and one new patient was admitted See under Leprosy.

The devotion and care given to the patients by the nursing religious sisters continue to be above all praise.

Darcy Island Leper Lazaretto, B.C.—The buildings at this leper lazaretto are in good repair. They have not been occupied during this year.

Public Works Health Act.—Your inspector for Eastern Canada states that the year has been an exceptional one in the almost non-appearance of contagious and infectious diseases among the men employed on the various public works coming under his inspection. He has found the medical service given to be complete. The sleeping

quarters and boarding of the men fully equal to the very good conditions reported by him last year.

Your inspector for Western Canada reports the year as remarkable for the sudden falling off in the volume of work and number of men engaged, and in the freedom from epidemic disease.

On the Hudson Bay Railway work much of the grading work was re-sublet to stationmen who lived in small segregated parties with improvised habitations. Though antiscorbutic food was obtainable some parties fed themselves so poorly on unvaried diet and indifferent cooking that numerous cases of scurvy developed. The trouble was eliminated by using pressure on the employees to have them eat more vegetables and fruit.

I have the honour to be, Sir,

Your obedient servant,

F. MONTIZAMBERT, M.D.

Director-General of Public Health.

The Honourable,

The Minister of Agriculture.

Ottawa.

MISCELLANEOUS

EXHIBITIONS.

APPENDIX No. 2.

SAN DIEGO, CAL., April 1, 1916.

SIR,—I have the honour to submit the following report of the operations of the Exhibition Branch of your Department for the fiscal year ended March 31, 1916:—

PANAMA PACIFIC INTERNATIONAL EXPOSITION, SAN FRANCISCO.

The greatest part of the fiscal year 1915-16 was spent at the Panama Pacific International Exposition, held at San Francisco, California, from February 20 to December 4, 1915, where, according to your instructions, we endeavoured to make our participation one of great magnitude that would surpass all our previous efforts. My report on the operations of this branch for the year 1914-15 affords detailed information as to the extent and importance of our participation in San Francisco and the results obtained up to the 31st of March, 1915. The great success of our exhibit during the first weeks continued unabated during the whole length of the Exposition. The Canadian Pavilion was recognized by all to be the most attractive building on the Exposition grounds, and the press and visitors were unanimous in giving Canada credit for being the foremost country in the world in the art of exhibiting and advertising her resources.

The attendance at the Panama Pacific International Exposition, San Francisco, totalled nearly 19,000,000, and practically all the visitors passed through our building. All the staff was kept busy answering inquiries from visitors from all parts of the United States regarding Canada, especially the farm lands of the Northwest, where a great many expressed their desire to go and settle. Another gratifying feature was the fact that our exhibit was visited by a large number of Canadians who were loud in their praise for what the Canadian Government was doing to advertise the country, expressing at the same time their satisfaction at our fine exposition.

A large quantity of Atlases and other publications issued by the Federal and Provincial Governments have been distributed during the year. This literature affords a thorough knowledge of Canada's resources, and deals especially with the adaptability of our soil and climate for agricultural purposes, and the opportunities offered for the safe investment of capital in our forest and mineral wealth. I have no doubt that Canada will derive great benefit through making such an extensive and comprehensive exhibit in California.

PANAMA CALIFORNIA INTERNATIONAL EXPOSITION, SAN DIEGO, 1916.

The Canadian Government having decided to take part in the Panama California International Exposition held in San Diego, California, during 1916, the exhibits shown in the Canadian Pavilion at San Francisco in 1915 have been transported to San Diego and are now installed in one of the finest buildings on the Exposition grounds, which has been placed at our disposal, free of charge, by the executive of the exposition. It is situated on the main thoroughfare of the grounds, near the main entrance. Its dimensions and construction were such as to allow the rapid and

successful installation of the whole of our exhibit, at a comparatively low cost. As in San Francisco our display includes products of agriculture, horticulture, forestry, minerals, fish and game, and relief maps of our water-powers. Panoramas and pictures of all kinds illustrate the progress of colonization in Canada, as well as transportation facilities, especially in connection with the requirements of the Northwest grain crops. Our display of fresh and bottled fruit and our mineral exhibit can without hesitation be called unique. Special attention is also given to the distribution of Government literature and to the operating of our Information Bureau.

Although the transference of our exhibits from San Francisco to San Diego was considerably hampered and delayed by the unusual stormy weather experienced in Southern California at the beginning of this year, we succeeded in having our Building opened to the public on the 15th of February, three days before the official opening of the Exposition. The papers are again publishing most complimentary reports about our participation, and our Building has already been visited by thousands and thousands of people from all parts of the United States. The Panama California International Exposition is extensively advertised all over the United States, our exhibit being mentioned as one of the main features. Special rates from all eastern parts have been arranged with the railroads, and the management fully expects that the number of visitors to the exposition will by far exceed the two millions that passed through the gates last year. In this respect I may say that their expectations will be fully realized if the attendance in the future continues to be as large as it has been since the opening day, and as our exhibit is given as being quite as complete and effective as in San Francisco, I have no doubt that the best results will be achieved for Canada here.

I may add that the management of the Exposition, realizing the great importance of the Canadian exhibit as a drawing card, not only placed at our disposal, free of charge, the magnificent building in which our exhibit is now installed, but also assumed to meet all expenses in connection with the transfer of our goods from our building in San Francisco to the Exposition grounds here, and the supplying of water, gas, electric current and guards, thus bringing down to a considerable extent the cost of our participation.

The whole respectfully submitted.

WM. HUTCHISON,
Canadian Exhibition Commissioner.

To the Honourable,
The Minister of Agriculture,
Ottawa.

DEPARTMENT OF AGRICULTURE
CANADA

REPORT

OF THE

VETERINARY DIRECTOR GENERAL

(F. TORRANCE, B.A., D.V.S.)

FOR THE

YEAR ENDING MARCH 31, 1916

PRINTED BY ORDER OF PARLIAMENT.

OTTAWA
J. de LABROQUERIE TACHÉ
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1917

[No. 15b—1917.]

REPORT

OF

THE VETERINARY DIRECTOR GENERAL

OTTAWA, March 31, 1916.

SIR,—I have the honour to present my report as Veterinary Director General for the year ending March 31, 1916.

The absence of a considerable number of our veterinary inspectors, and other members of our staff, who have joined the colours, has rendered us somewhat short-handed. Notwithstanding this difficulty, the work of the branch has not been neglected in any way. Our officers have shown their willingness to do more than their duty, and have enabled us, by their diligence, to overcome the handicap of scarcity of workers.

To all the members of our staff I desire to express my appreciation of the loyal service they have given to our branch during the emergencies that have arisen.

Progress has been made in the control of contagious diseases, foot-and-mouth disease has been kept out of our borders, and new methods have been inaugurated with success.

The Meat Inspection Division has had a particularly busy year, owing to the great increase in the export of dressed meats caused by the war, full particulars of which are given herewith.

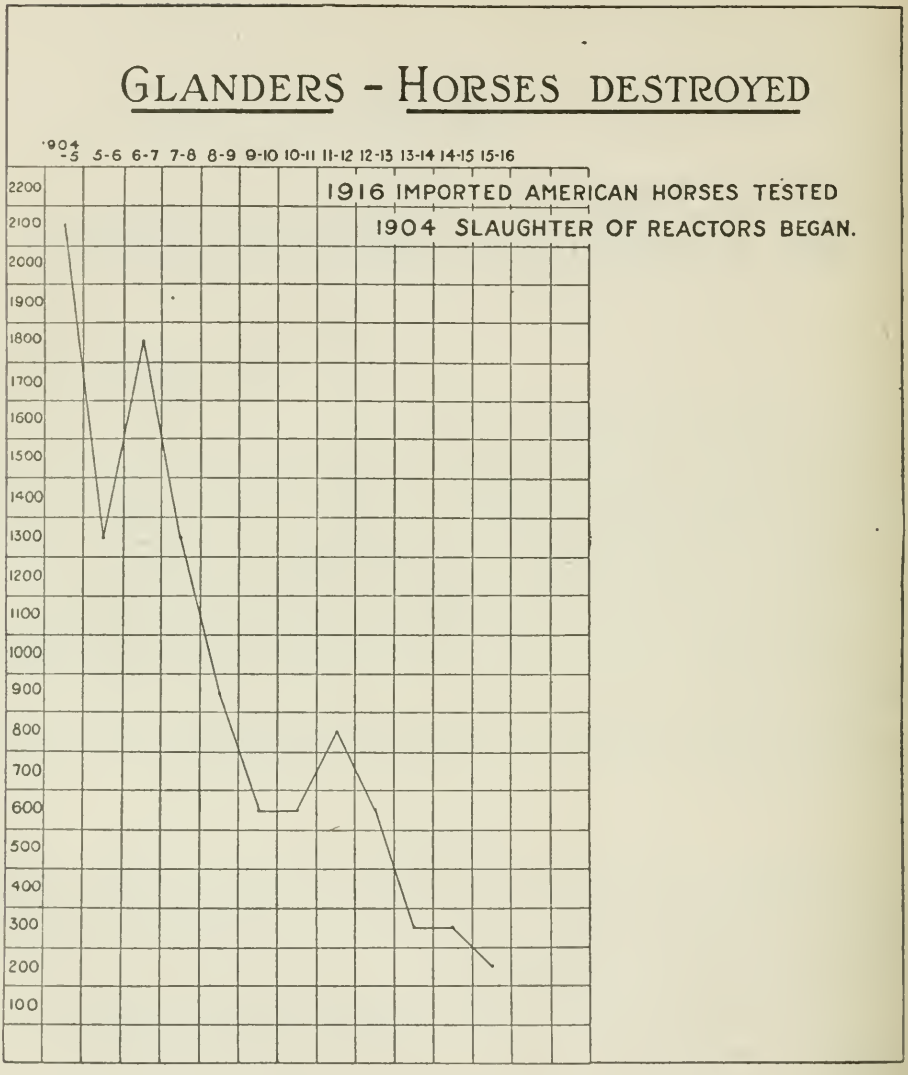
GLANDERS.

A gratifying reduction in the number of horses destroyed for glanders is to be noted; and these, as in former years, have been found almost entirely in the Prairie Provinces. Of the total number killed, 241, the province of Saskatchewan contributed 191, the remainder being scattered between the other provinces, with the exception of the Maritime, in which no cases were found.

The more recent settlement of Saskatchewan, the importation of horses to supply the wants of new settlers, and the delay which often occurs in reporting suspicious cases to our inspectors, are the probable causes of the number of outbreaks in this province.

Eleven reactors were detected among American horses tested by our officers at the border. These were refused admittance to Canada and returned to the United States to be dealt with according to their laws.

	No. Horses Destroyed	Compensation Paid
1906	1,787	$168,845
1907	1,881	142,[illegible]
1908	1,324	132,[illegible]
1909	[illegible]81	[illegible]
1910	627	[illegible]
1911	666	[illegible]
1912	583	[illegible]
1913	648	[illegible]
1914	338	[illegible]
1915	340	[illegible]
1916	226	21,645



DOMINION.

4 killed on inspection.
209 " at first test.
27 " " second test.
1 " " fourth test.

241 (valued at $34,655, at a cost of $23,102.76).

67 showed clinical symptoms.
7,523 horses were tested with mallein, of which 237 reacted and were destroyed.
Of the 237 reactors, 67 showed clinical symptoms of glanders at or during the test.
95 horses are under control for retest.
Of the above 237 horses slaughtered 8 were killed without compensation.

NOVA SCOTIA.

41 horses were tested and proved to be healthy.

NEW BRUNSWICK.

79 horses were tested and proved to be healthy.

QUEBEC.

3 killed on inspection.
12 " at first test.

15 (valued at $1,920, at a cost of $1,279.99).

13 showed clinical symptoms.
119 horses were tested with mallein, of which 12 reacted and were destroyed. Of the 12 reactors, 10 showed clinical symptoms of glanders at or during the test.
Of the 15 horses slaughtered—

2 were in the electoral district of Montmagny.
3 " " " " " " Bellechasse.
1 was " " " " " Terrebonne.
4 were " " " " " Jacques Cartier.
2 " " " " " " Montreal.
3 " " " " " " Beauce.

15

ONTARIO.

5 killed at first test.
2 " " second test.

7 (valued at $1,250, at a cost of $833.31).

3 showed clinical symptoms.
69 horses were tested with mallein, of which 7 reacted and were destroyed. Of the 7 reactors, 3 showed clinical symptoms of glanders at or during the test.
2 horses are under control for retest.
Of the 7 horses slaughtered—

6 were in the electoral district of Renfrew, S.R.
1 was in the electoral district of Glengarry.

MANITOBA.

4 horses were killed on first test, valued at $665.00, at a cost of $443.33.
1 showed clinical symptoms.
162 horses were tested with mallein, of which 4 reacted and were destroyed. Of the 4 reactors 1 showed clinical symptoms of glanders at or during the test.
The 4 horses slaughtered were in the electoral district of Dauphin.

SASKATCHEWAN.

167 killed at first test.
24 " " second test.

191 (valued at $27,805, at a cost of $18,536.17).

43 showed clinical symptoms.
5,240 horses were tested with mallein, of which 191 reacted and were destroyed. Of the 191 reactors, 43 showed clinical symptoms of glanders at or during the test.

93 horses are under control for retest.
Of the 191 horses slaughtered—

13	were	in	the	electoral	district	of	Regina.
21	"	"	"	"	"	"	Humboldt.
108	"	"	"	"	"	"	Moosejaw.
1	was	"	"	"	"	"	Qu'Appelle.
37	were	"	"	"	"	"	Assiniboia.
5	"	"	"	"	"	"	Battleford.
1	was	"	"	"	"	"	Saskatoon.
5	were	"	"	"	"	"	Saltcoats.
191							

ALBERTA.

1 killed on inspection.
20 " at first test.
1 " at fourth test.

22 (valued at $2,875, at a cost of $1,916.63).

6 horses showed clinical symptoms.
1,799 horses were tested with mallein, of which 21 reacted and were destroyed. Of the 21 reactors, 5 showed clinical symptoms at or during the test.
Of the 22 horses slaughtered—

6	were	in	the	electoral	district	of	Medicine Hat.
4	"	"	"	"	"	"	Macleod.
7	"	"	"	"	"	"	Calgary.
4	"	"	"	"	"	"	Red Deer.
1	was	"	"	"	"	"	Strathcona.
22							

BRITISH COLUMBIA.

1 killed at first test.
1 " " second test.

2 (valued at $140, at a cost of $93.33).

1 showed clinical symptoms.
14 horses were tested with mallein, of which two reacted and were destroyed. Of the reactors, 1 showed clinical symptoms at or during the test.

RABIES.

In Ontario, 69 premises were quarantined on account of the prevalence of rabies in the adjacent districts, distributed as follows:—

District.	Premises quarantined.
Brant	3
York	18
Dufferin	15
Simcoe	4
Welland	3
Peel	4
Wellington	1
Halton	2
Oxford	1
Norfolk	3
Perth	15
	69

DOURINE.

A further reduction in the number of cases of this disease shows that gratifying progress has been made. The disease is of such an insidious nature that no effort is spared in the hope of its final eradication. Horse owners have co-operated with the Health of Animals Branch to a marked degree and have, very generally, submitted with a good grace to the restrictions of breeding and the movement of horses it was deemed necessary to impose. The laboratory at Lethbridge has again shown its great usefulness in affording facilities for the immense number of blood tests made by our pathologist there, Dr. W. L. Hawke, and his assistants

	Horses destroyed.	Compensation.
		$ cts.
1907	167	10,336 00
1908	49	3,449 00
1909	28	2,506 00
1910	37	3,419 00
1911	41	5,110 00
1912	18	1,739 00
*1913	18	2,096 00
1914	394	32,080 00
1915	382	31,363 00
1916	220	16,666 00

* Complement fixation test used for diagnosis.

DOURINE.

228 animals, valued at $26,085, were slaughtered as being affected with this disease, at a cost of $17,389.65, distributed as follows:—

SASKATCHEWAN.

Electoral District.	Animals quarantined.	Slaughtered.
Moosejaw	185	31
Saskatoon	1	
Assiniboia	2	
Battleford	21	1
	209	32

ALBERTA.

Calgary	85	12
Macleod	697	100
Medicine Hat	1,097	86
Red Deer	47	8
Strathcona	126	
Edmonton	1	
	2,053	196

ONTARIO.

	Animals quarantined.	Slaughtered.
Parry Sound	1	—

CATTLE MANGE.

A further reduction of the mange area was effected during the year, nearly seventy townships being released. There has also been a diminution in the number of herds quarantined. The dipping of cattle under the supervision of our officers now meets with little or no opposition from owners, as they are realizing the advantages derived from ridding their cattle of other parasites as well as mange. Dipping is found to improve the general health and vigour.

Province.	Outbreaks	Animals affected.	Animals quarantined.
Saskatchewan	23	75	15,651
Alberta	57	759	23,937
British Columbia	* 3	.....	25
Quebec	1	2	2

* Canadian Pacific Railway Company Stock Yards, and Canadian Northern Pacific Railway Company Stock Yards at Kamloops are also quarantined, a license being required before any animals may be removed.

56,625 cattle were inspected on being presented for shipment from the quarantined area in Saskatchewan and Alberta.

136,787 cattle were inspected in Winnipeg on arrival from points west thereof.

HORSE MANGE.

Outbreaks have occurred in these provinces, and all were successfully treated under our officers' supervision.

Province.	Outbreaks.	Animals affected.	Animals quarantined.
Quebec	26	39	55
Saskatchewan	140	321	968
Alberta	1	3	400
	167	363	1,423

24,552 horses and 41 mules were inspected on being presented for shipment from the quarantined area in Alberta and Saskatchewan.

SHEEP SCAB.

Two outbreaks, both in Manitoba, occurred during the year, and were successfully handled. The remainder of Canada was free from the disease.

In Manitoba 746 animals on 9 premises were found to be affected with sheep scab.

District.	No. affected.
Dauphin	9
Brandon	737
	746

In accordance with the Quarantine Regulations, 501 sheep imported into Canada were quarantined for the prescribed period of thirty days.

ANTHRAX.

A few outbreaks occurred in Ontario and Quebec. Vaccine prepared in our laboratory at Ottawa was successfully used in its control.

The following outbreaks were reported and dealt with during the year:—

Province.	Outbreaks.	Animals quarantined.	Animals affected.
Quebec	3	136	6
Ontario	10	229	19
	13	365	25

Eight hundred and ninety-nine doses of anthrax vaccine and 100,022 doses of blackleg vaccine were sent out during the year.

TUBERCULOSIS.

The application of the federal regulations to the city of Saskatoon began with the close of our last fiscal year, and I now report the result of the first year of operation. This has been highly satisfactory. The number of reactors found at the first test was less than might have been expected, and in the work of getting rid of them there was a gratifying absence of friction or dissatisfaction. In fact, no complaints have reached the branch from the dairymen concerned, that they considered their treatment unfair.

The citizens of Saskatoon have been well satisfied with the results attained, and the city council have expressed this feeling in the following resolution, passed July 13, after the completion of the first test:—

> "That this city very much appreciates the prompt and effective response to their application to have all the cattle in the vicinity of Saskatoon tested for tuberculosis, and the excellent work carried out by the assistants of the Veterinary Director General's Department."

As this report deals only with the work done previous to March 31, 1910, the following figures can only be taken to show what has already been accomplished towards a task, which is far from complete, and which it would be unreasonable to expect to finish in one year.

RECORD OF TESTING AT SASKATOON.

2,232	cows tested at	first test..	136	reactors = 6	per cent.
561	"	second test	27	" = 4·8	"
144	"	third test	0	" = 0	"

The much smaller number shown at the second and third tests is due to the fact that the first test disclosed a large number of herds that contained no reactors. These herds were not retested during the period covered by the report. The herds in which reactors were found were retested as soon after the first test as it was deemed advisable, any reactors dealt with under the regulations, and a third test made after a reasonable interval.

DISPOSAL OF REACTORS.

The regulations provide for three methods of dealing with reactors: (1) immediate slaughter, (2) slaughter after fattening, and (3) withdrawal from the raw milk trade. Of the 163 reactors mentioned above, 144 were slaughtered either immediately or after fattening, 9 were still fattening for slaughter, and 10 were withdrawn from the dairy business by their owners, who preferred to have their licenses cancelled. These ten cows were earmarked by punching out a large "T" in the right ear to indicate to future purchasers that they are tuberculous cattle.

The small percentage of cattle thus withheld from slaughter is, I think, fair evidence that the majority of dairymen do not want to keep tuberculous cows, and will get rid of them if reasonable assistance is granted.

142 reactors slaughtered, valued $9,440, compensation $3,144.59.
2 reactors slaughtered, salvage in excess of value.
1 reactor traded for horse.
9 reactors, where owners preferred to have licenses cancelled than slaughter animals. These could not be classed under section (*a*), paragraph 5, of the Tuberculosis Order and were therefore earmarked and released.
9 reactors not yet slaughtered.

163 reactors.

NEW METHODS OF TUBERCULIN TESTING.

The advocates of intradermal and subpalpebral testing have been claiming for these methods equal reliability with the old subcutaneous test, and the great advantage of taking less time. The accuracy of a test is usually affirmed when it is found on postmortem examination that the animal which reacted to the test was actually diseased. As the non-reactors are not usually killed at the time of the test, there is no evidence to show that they were free from disease. In order to determine accurately both aspects of the question the following experiment was carried out:—

One thousand and six cows, which were about to be slaughtered at an abattoir, were first submitted to the test. This was applied by two of our most experienced inspectors, Drs. Moore and Stork. The tuberculin used was of two kinds; the first was prepared in our own laboratory at Ottawa and used in the testing of 908 cattle; the second kind of tuberculin was obtained from a well-known firm of biological chemists in the United States, and was specially made for intradermal testing. Ninety-eight of the cattle were tested with this tuberculin. No difference in the results was observed in the use of these different tuberculins.

In order to test the relative advantages or disadvantages of the intradermal and subpalpebral methods, 656 were tested by the former, and 350 by the latter. The intradermal method usually adopted involves the injection of the tuberculin (½ c.c.) into the skin at the root of the tail, where the skin forms a fold known as the caudal

fold. The injection is made into the inner layer of the skin and not into the tissue beneath the skin, the operation requiring more skill and care than the subcutaneous injection.

The subpalpebral method is a modification of the intradermal, and differs from it in the place selected for the injection. This is a fold of skin of the lower eyelid, and is supposed to offer a cleaner site and to furnish a more marked reaction. In both methods the reaction consists of a swelling which makes its appearance at the site of injection several hours afterwards, and usually reaches its maximum in forty-eight or seventy-two hours. The extent of the reaction is judged by the size of the swelling, comparing one eye with the other, or one caudal fold with the other. In non-reactors the trifling swelling caused by the tuberculin soon disappears, and in both reactors and non-reactors no permanent effect remains.

Comparing the results obtained by the two methods, no difference as to accuracy could be detected, and the inspectors making the test were indifferent as to which method they used.

Taking the test as a whole, the following results were obtained:—

Total number of cattle tested	1,[illegible]6
" " slaughtered	1,[illegible]
" " reacting	45
Number of reactors found diseased on postmortem	15
" " " " "	22
" suspects " " "	8

In addition to the suspects found diseased on postmortem, there were thirteen suspects in which no disease was found, and there were three reactors in which no disease was found.

It will be noted from the above that the result was far from satisfactory. Not only did the test fail to pick out the diseased animals, but it indicated disease in animals where it could not be found. The large number of suspects shows that there is much difficulty in reading aright the evidence of swelling. There is sometimes a slight swelling which the inspector is at a loss to explain. It may be a slight reaction, or perhaps a slight local infection or irritation from something carried in by the needle from the surface of the skin. The inspector is unable to decide, and classes the animal as suspicious.

A similar difficulty is not infrequent in making the subcutaneous test. The temperature recorded shows a rise following the injection, but not sufficient to be called a reaction, and the animal is classed as suspicious. However, in subcutaneous testing the proportion of suspects is very limited, and never as high as in this experiment.

On the whole, the result is not satisfactory to the new tests, and I do not think we would be justified in adopting either, in preference to the present method. This has its drawbacks, but, in good hands and used on cattle that have not been tampered with, it is quite reliable.

I would call attention to the small percentage (4·5 per cent) of diseased animals found in this lot of cattle. These were all old dairy cows, known to the trade as 'canners,' and such cattle are generally supposed to be more frequently affected with tuberculosis than almost any other class. They were tested in the Toronto Stock Yards, and may fairly be supposed to have come from farms in Ontario. This may indicate that bovine tuberculosis is not as widespread as is commonly supposed.

Tuberculin Tests Made.

Two hundred and seventy-one were tested on being imported into Canada, 6 of which reacted, 2 were classed as suspicious, and 263 proved healthy.

Eight hundred and six cattle were tested for export, 8 of which reacted, 3 were classed as suspicious, and 795 proved healthy.

Five thousand three hundred and seventy-one cattle were tested by private practitioners, 366 of which reacted, 98 were classed as suspicious, and 4,907 proved healthy.

All reactors were permanently earmarked by a veterinary inspector, in cases where the owner did not voluntarily destroy them.

Two hundred and fifty-eight cattle were tested for shipment to different parts of the Dominion, 10 of which reacted, and 248 proved healthy.

One thousand nine hundred and seventy-five cattle were tested in herds under the supervision of this department, 119 of which reacted, 18 were classed as suspicious, and 1,838 proved healthy.

Eight hundred and fifty-five other cattle were tested by officials of this department, 58 of which reacted, 37 were classed as suspicious, and 760 proved healthy.

HOG CHOLERA.

The experience of past years having proved conclusively that the feeding of uncooked garbage is a frequent cause of hog cholera, and has been responsible for many serious outbreaks of the disease, it was decided to limit this practice to those who are willing to cook the garbage and to maintain their hog pens in a sanitary condition.

The following regulation was passed and is now law:—

> "The feeding of swine upon garbage, either raw or cooked, obtained elsewhere than on the premises where fed, is prohibited, unless special permission in writing is first obtained from the Veterinary Director General."

Following the passing of this regulation, our inspectors have endeavoured to have all persons engaged in the business of garbage feeding apply for a license to continue the same. No charge is made for a license, but licenses are issued only to persons having the necessary appliances for cooking the garbage, and who maintain their premises in a sanitary manner.

A large number of licenses have been issued, and the supervision which this system enables us to exercise over this business is already showing good results. No prosecutions have yet been undertaken of parties who continue to feed garbage without a license, but it will probably be necessary to do so unless the law is generally obeyed.

Another important change in our method of handling hog cholera has resulted in reducing the losses from the disease to a considerable extent. This is the use of serum to save as many as possible of the hogs in an outbreak. We are using the "serum alone" method to immunize hogs which have been exposed to infection but have not yet developed the symptoms of the disease. Under former methods, these hogs were slaughtered and their carcasses destroyed, so as to stamp out the infection as soon as possible. Now we are able to save a large number of hogs which are fattened under quarantine, and subsequently slaughtered under inspection for pork. We are not permitting these immunized hogs to remain alive for breeding purposes, as it is likely that some of them may be immune carriers of the disease, and thus originate fresh outbreaks.

The serum is injected by our own inspectors without cost to the farmer, and the serum is obtained from highly recommended manufacturers in the United States. For many reasons this appears to be more desirable at present than to engage in its manufacture at our laboratory here.

SESSIONAL PAPER No. 15b

ESTIMATED saving to the department through the use of hog cholera serum from April 26, 1915, to December 31, 1916.

Hogs treated with serum, 1915-16	2,349
" " April 1, 1916, to December 31, 1916	6,036
Total hogs treated	8,385
Estimated compensation value	$57,145 66
Cost of 346,699 c.c. serum at $15 per 1,000	1,451 28
Estimated cost of express	75 [illegible]
" " broken syringes and needles	49 [illegible]
" " ear tags	75 00
Total expense	$ 1,691 28
Estimated saving	$55,454 38

I am glad to report that a very great improvement is shown in the figures for the year now ending. Last year was very expensive to us in the heavy losses occasioned by this disease, and the drop from 34,470 hogs destroyed in 1915 to only 5,700 in 1916 is extremely gratifying.

	No. of hogs destroyed.	Compensation
1909	1,881	$ 9,912
1910	1,127	7,087
1911	1,346	8,818
1912	4,249	23,446
1913	8,466	52,785
1914	34,779	195,981
1915	34,470	188,382
1916	5,700	33,695

Dominion.—In the Dominion, 5,700 hogs were destroyed as diseased, at a cost of $33,699.95 in compensation.

Nova Scotia.—Three outbreaks of hog cholera occurred in Nova Scotia, in which 399 hogs, valued at $3,063 were destroyed, at a cost of $2,011.98 in compensation.

Three premises were quarantined on suspicion of hog cholera.

Quebec.—Thirty-one outbreaks of hog cholera occurred, in which 706 hogs, valued at $6,125, were destroyed in the undermentioned districts, at a cost of $4,083.28.

One hundred and thirty premises were also quarantined on suspicion, involving the control of 1,655 hogs.

Six hogs, valued at $70, were destroyed for purposes of examination, but no evidence of hog cholera was found.

District.	No. outbreaks	Hogs destroyed
Chambly-Verchères	2	[illegible]
Laval	6	[illegible]
Montmorency	1	[illegible]
Missisquoi	1	[illegible]
Bagot	3	[illegible]
Compton	3	[illegible]
Champlain	3	14
L'Assomption	1	[illegible]
Rimouski	[illegible]	[illegible]
Bellechasse	[illegible]	[illegible]
Labelle	[illegible]	[illegible]
Quebec	1	[illegible]
	31	706

Ontario.—One hundred and sixty three outbreaks of hog cholera occurred, in which 2,537 hogs, valued at $21,668.50, were destroyed in the undermentioned districts, at a cost of $14,445.07 in compensation.

Two hundred and two premises were also quarantined on suspicion, involving the control of 4,758 hogs

Twenty-two hogs, valued at $141.82, were destroyed for purposes of examination, but no evidence of hog cholera was found.

District.	No. outbreaks.	Hogs destroyed.
Essex, S.R.	23	684
Essex, W.R.	2	21
Kent, E.R.	3	50
Kent, W.R.	10	227
York, S.R.	13	235
York, C.R.	9	80
Elgin, E.R.	11	218
Elgin, W.R.	9	123
Nipissing	23	286
Oxford, S.R.	1	5
Wentworth	3	38
Frontenac	3	36
Middlesex, E.R.	6	118
Carleton	9	53
Welland	16	121
Waterloo, N.R.	2	69
Peel	2	27
Brantford	7	95
Brant	4	35
Lincoln	1	1
Haldimand	3	4
London	3	11
	163	2,537

Manitoba.—Thirty-nine outbreaks of hog cholera occurred in Manitoba, in which 922 hogs, valued at $8,981, were destroyed in the undermentioned districts, at a cost of $5,987.28.

Thirteen premises were also quarantined on suspicion, involving the control of 177 hogs.

Ten hogs, valued at $41, were destroyed for purposes of examination, but no evidence of hog cholera was found.

District.	No. outbreaks.	Hogs destroyed.
Winnipeg	6	343
Brandon	28	395
Dauphin	2	14
Provencher	3	170
	39	922

Saskatchewan.—Twenty-two outbreaks of hog cholera occurred in Saskatchewan, in which 479 hogs, valued at $4,415.40, were destroyed in the undermentioned districts, at a cost of $2,943.58 in compensation.

Nineteen premises were also quarantined on suspicion, involving the control of 661 hogs.

Twenty-one hogs, valued at $87.33, were destroyed for purposes of examination, but no evidence of hog cholera was found.

District.	No. outbreaks.	Hogs destroyed.
Assiniboia	3	219
Saskatoon	12	174
Battleford	5	33
Moosejaw	2	53
	22	479

Alberta.—Seven outbreaks of hog cholera occurred in Alberta, in which 288 hogs, valued at $3,526, were destroyed in the undermentioned districts, at a cost of $2,350.64 in compensation.

Seventeen premises were also quarantined on suspicion, involving the control of 1,247 hogs.

Nine hogs, valued at $74, were destroyed for purposes of examination, but no evidence of hog cholera was found.

District.	No. outbreaks.	Hogs destroyed
Macleod	1	4
Edmonton	3	125
Strathcona	2	139
Medicine Hat	1	20
	7	288

British Columbia.—Twenty-five outbreaks of hog cholera occurred in British Columbia, in which 369 hogs, valued at $2,772.30, were destroyed in the undermentioned districts, at a cost of $1,848.12 in compensation.

Fifteen premises were also quarantined on suspicion, involving the control of 335 hogs.

Seven hogs, valued at $30.66, were destroyed for purposes of examination, but no evidence of hog cholera was found.

District.	No. outbreaks.	Hogs destroyed.
Vancouver	1	35
New Westminster	3	71
Victoria	2	19
Yale-Cariboo	1	7
Nanaimo	16	226
Comox-Atlin	2	11
	25	369

LABORATORIES.

Our laboratories have continued to do good work in the manufacture of biological products for use in the diagnosis and control of disease, and have also been able to attack some of the problems in veterinary science, which call for research. In this latter respect, however, our efforts have been limited on account of the absence "with the colours" of Dr. Watson, of our Lethbridge laboratory, and Dr. Evans, of headquarters' staff.

At the Ottawa Biological Laboratory, under the charge of Dr. C. H. Higgins, a large quantity of biological products were manufactured for use in our service and for sale to the public.

	No. of doses.
Mallein	19,000
Tuberculin	22,980
" precipitated	1,600
Strangles vaccine	3,056
Stock bacterial vaccine	14,346
Blackleg vaccine, single	120,910
" " double	242
Anthrax vaccine	395
Total	181,981

Our blackleg vaccine is now prepared in the form of pellets to be introduced beneath the skin by a special instrument. This change was made because of the frequent breakages of instruments in using the thread form of vaccine, and also on account of the increasing price of the silk cord used in its manufacture. Our sales of blackleg vaccine are increasing, and in its new form the vaccine appears quite satisfactory.

DISINFECTANTS.

The importance of reliable disinfectants for the work of this branch cannot be overestimated. In the suppression of disease, the cleansing and disinfecting of premises, on which cases of contagious disease have occurred, is a vital matter, and the agent used must be of sufficient strength to destroy germ life, or the work is of no avail.

The enormous increase in the price of carbolic acid, owing to its use in explosives, has resulted in the use of a great many substitutes, some of very doubtful value, and

I therefore decided that it would be well to test as many of these substitutes as we conveniently could. This work has occupied much of the time of Dr. Higgins, and has already given us good results. When the investigation is completed, it may be advisable to publish the results in bulletin form.

In examining and testing disinfectants, the method of the Hygenic Laboratory of the Public Health Service of the United States is employed, pure carbolic acid (phenol) being used as the standard of comparison.

Detailed information concerning the examinations made of a number of disinfectants is presented herewith. These are placed in alphabetical order for ready reference. We are not presenting full information concerning results secured with organic matter present, for in some instances these are still incomplete. Our experience indicates, however, that the drop in coefficient value when organic matter is added varies from one-twentieth to one-third, according to the chemical constituents included in the bulk disinfecting material. The pressure of work has been so great that we have been unable to complete this feature in every instance. However, we have sufficiently checked this aspect of the disinfectant problem to fully safeguard routine disinfecting operations.

CHLORIDE OF LIME.

		Phenol coefficient.
7739	Sample taken from Laboratory stock (Crown Diamond)	11·8
7740	Sample taken from Laboratory stock (Crescent)	13·3

COOPER'S FLUID.

7230	Sample submitted by the Veterinary Director General	1·53
7290	Sample submitted by the Veterinary Director General	1·90
7726	Sample submitted by E. S. Archibald, Ottawa	2·1
7763	Sample submitted by the County of Carleton General Protestant Hospital, Ottawa (barrel bulk)	2·7

CRESOL COMPOUND.

7316	Sample submitted by Inspector W. W. Stork, Toronto, Ont.	1·8
7408	Sample submitted by the Can. Northern Ry., Winnipeg, Man.	0·2
7449	Sample submitted from Turcot Yards (Labelled Cresol compound but was really a Carbolic oil.)	1·6
7461	Sample submitted by Inspector W. W. Stork, Toronto, Ont.	0·12
7560	Sample submitted by the Can. Northern Ry., Winnipeg, Man.	1·4
7689	Sample submitted by W. E. Troup, Niagara Falls, Ont.	1·0
7693	Sample submitted by the Can. Northern Ry., Winnipeg, Man.	2·65
7708	Sample submitted by the Grand Trunk Ry. stores, Ottawa.	2·5
7721	Sample (Cre-septic) submitted by the Theo. B. Robertson Soap Co., Chicago, Ill., U.S.A.	1·9
7722	Sample submitted by the Grand Trunk Ry., Montreal, Que.	2·8
7729	Sample submitted by W. E. Troup, Niagara Falls, Ont. (After settling an examination of the top layer gave a cofficient of 0·37, while the bottom gave a cofficient of 0·79.)	0·58
7760	Sample submitted by Inspector Shaver, Edmonton, Alta.	0·8
7780	Sample submitted by the Ottawa and New York Ry., Ottawa.	2·1
7785	Sample submitted by the Grand Trunk Ry., Niagara Falls, Ont.	2·98

CRUDE CARBOLIC ACID.

Chem. Lab. No.		
	Sample from Laboratory stock secured in 1912	3·02
19970		0·94
19971		0·74
19972		1·56
19973		0·51
19974		1·5
20001		1·8
20005		0·64
20013		0·53
20015		1·51
20016		0·6
20017		0·8
20018		0·86
20046		0·64
20060		0·64
20061		0·49
20062		2·0

Chem. Lab. No.	CRUDE CARBOLIC ACID.—*Continued.*	Phenol coefficient.
20069	.. ..	0·41
20336	.. ..	0·34
20715	.. ..	5·56
	(An emulsified product.)	
7271	.. ..	0·8
7272	.. ..	0·59
7317	Sample submitted by Inspector W. W. Stork, Toronto, Ont. ..	1·0
7360	Sample submitted by the Grand Trunk Ry., Montreal, Que. ..	2·5
7371	Sample submitted by the Central Vermont Ry., St. Albans, Vt.	1·0
7372	Sample submitted by the Canadian Pacific Ry., Montreal, Que.	2·63
7461	Sample submitted by Inspector W. W. Stork, Toronto, Ont. .. [Preparation called Cresol but is a crude black oily preparation (carbolic oil).]	0·12
7683	Sample submitted by Inspector W. W. Stork, Toronto, Ont. ..	0·38
7684	Sample submitted by Inspector W. W. Stork ,Toronto, Ont. ..	0·4
	COOKS COFECTANT.	
	Sample received in 1910. Tested in 1915..	10·0
	CREOLIN.	
	Laboratory stock secured in 1913. Tested March 5, 1915	4·39
7417	Sample submitted by Inspector Philps, Bridgeburg, Ont.. ..	4·6
7436	Sample submitted by Inspector C. D. McGillvray, Winnipeg, Man..	2·2
	FORMALDEHYDE.	
7441	Sample submitted by F. K. Dutcher, Druggist, St. Albans, Vt., U.S.A..	0·2
	HYCOL.	
	Laboratory stock..	4·31
	IZAL.	
	I Laboratory stock (Sample tin)..	6·10
	II " "	8·48
	III " "	6·24
7551	Sample submitted by the Veterinary Director General. (Sample tin)..	8·6
7715	Sample submitted by Inspector C. D. McGillvray, Winnipeg, Man..	7·5
7764	Sample submitted by the County of Carleton General Protestant Hospital, Ottawa, (from bulk supply)..	4·18
	IZAL, VETERINARY.	
	Laboratory stock (Sample tin)..	2·62
	K.A.G.	
	(Kills all germs). A powder disinfectant selling locally at 10 cents per pound package and recommended for deodorizing, disinfecting and keeping flies away from garbage pails.	
	C.H.H. Bought at A. E. Rea & Co.. .. .. (Watery extract made for testing but expression of coefficient refers to original powder and not to solution).	1·4
	K.K. DISINFECTING FLUID.	
	(Manufactured by the Rochester Germicide Co., Rochester, N.Y.)	
7623	Sample I submitted by E. S. Archibald, Ottawa	0·8
7682	Sample II submitted by E. S. Archibald, Ottawa	2·6
7420	Sample III submitted by E. S. Archibald, Ottawa	3·8
	LIME.	
*7814	(Stone.) Local supply	17·6
*7737	(Hydrated.) Sample submitted by Inspector W. H. Rowe, Chatham, Ont.	13·6
7749	(Stone.) Sample submitted by Inspector W. W. Stork, Toronto, Ont.	3·2
7757	(Stone.) Sample submitted by Inspector C. D. McGillvray, Winnipeg ,Man	7·8
7762	(Stone.) Sample submitted by Inspector C. D. McGillvray, Winnipeg, Man	8·1

* In these two instances the test was run immediately after getting this lime solution prepared. In the other cases the test was run some days after the preparation of the lime solution. This same feature has been observed with all samples of lime tested.

NEKO.

		Phenol coefficient.
	(Manufactured by Parke, Davis & Co., Detroit, Mich.)	
7784	Sample submitted in original container by the Veterinary Director General (Sample No. C. 456879)..	15·2
7791	Sample submitted in original container by the Veterinary Director General (Sample No. 434610)..	16·9

PHENECO.

	(Manufactured by the West Disinfecting Co., Montreal.)	
7612	Sample submitted by the Veterinary Director General..	15·8

PYXOL.

	(Manufactured by the Paterson Manufacturing Co., Montreal.)	
7401	Sample submitted by the Canadian Pacific Railway, Montreal.	13·0
7697	Sample submitted by Inspector Frink, St. John, N.B..	11·8
7700	Sample submitted by the Canadian Pacific Railway, Montreal.	10·6
7750	Sample submitted by Inspector Stork, Toronto, Ont..	12·1

SAND DISINFECTANT.

7183	Sample submitted by the Veterinary Director General.. .. . (25 grammes taken and after leaching with water, 24·5 grammes of insoluble material remains.)	0·033

SODIUM HYPOCHLORITE.

7787	Sample secured from City Water Works (courtesy of Mr. J. Race, city bacteriologist)..	5·0

WESCOL.

7719	Sample submitted by E. S. Archibald, Ottawa.. .. .. (This sample was found later to have been supplied in error by the Warehouse and replaced with the product ordered.)	4·3

ZENOLEUM.

7624	Sample submitted by E. S. Archibald, Ottawa..	2·3

It will be seen from the above that the disinfectants which we have tested vary greatly in their coefficient values. While we express the disinfectant value by a given number, this should be interpreted to mean that the number or coefficient is the relative lethal effect of that particular disinfectant compared with pure carbolic acid or phenol on the typhoid organism. Therefore, if we express the phenol coefficient as 2·0 this would mean, that if you are accustomed to using your phenol or carbolic acid in a 5 per cent solution, you would secure under ordinary conditions equivalent results with a 2½ per cent solution of this stronger product. For the purpose of arriving at the dilution in which the disinfectant should be used we are arbitrarily specifying the following: "A disinfectant should be made using therefor 40 pounds of freshly-burned stone lime to the barrel of water as a base, and to this add sufficient disinfectant having a phenol coefficient of not less than 2·0 to make a 3 per cent solution of the disinfectant in the limewash preparation. Where the phenol coefficient is shown to be in excess of 2·0, the amount of disinfectant to be added may be reduced proportionately. Thus if a disinfectant having a phenol coefficient of 10·0 is used, a limewash solution containing 0·6 per cent of the disinfectant will be the equivalent.

ABORTION.

Another very important subject with which we have dealt during the past year has been that of contagious abortion. The details of this work have been entirely in the hands of Dr. J. C. Reid of the Laboratory staff. He has undertaken a great many examinations to determine the presence or absence of this affection in herds where a suspicious case has appeared. He has also had a number of animals placed at his disposal through the courtesy of the Dominion Experimental Farms, with the result that these are now under experiment to determine whether or not the method of immunization will prove effective. To assist this work and overcome the very serious reaction at times following the injection, he has devised a serum which promises good results. This

serum has been secured from the goat by increasing the protective power in the blood against the organisms causing contagious abortion. After a sufficient resistance has been built up in the animal under experiment, the blood is withdrawn, the serum permitted to rise, and this is afterwards tested for the purpose of standardizing. The results already secured show that the simultaneous injection of a living or killed culture and the serum is followed by a very slight or no reaction. When the living or killed culture without the serum is used there is quite an elevation in temperature, and other symptoms may also be noted. Work is continuing on this line as fast as our limited staff permits.

Agassiz, B.C.—Our small research laboratory, under the care of Dr. Seymour Hadwen, continues to give good results. His investigation of the life-history of the parasites of cattle, commonly known as "warbles," has brought out new and interesting facts. These were deemed of sufficient importance to be published as bulletins of the Scientific Series, Nos. 21 and 22, entitled, respectively, "A further contribution on the Biology of Hypoderma Lineatum," and "Observations on the Migration of Warble larvæ through the tissues."

A serious malady of horses, prevalent on the low coast lands, and resulting in many deaths, was investigated and found to be caused, in all probability, by feeding on bracken or fern. This weed is very frequently found in the hay put up in this region, and when in sufficient quantity gives rise to symptoms commonly known as "staggers." The horse becomes weak, loses control of his legs, wobbles in his gait, becomes emaciated, and dies. Experiments are being made to verify the facts by feeding hay containing bracken to horses under observation, the results of which will be reported later.

During the summer of 1915, an experiment was carried out with a view to ascertaining facts regarding a disease of cattle in the Dry Belt of British Columbia. This disease has been causing numerous deaths among the cattle in the vicinity of Kamloops. Stock owners were inclined to believe that the disease is contagious, and as it does not correspond with any of the known contagious diseases, it was of importance to ascertain the facts regarding it. With this object, ten head of healthy young cattle were shipped from Alberta to Kamloops and placed in a corral with five head of diseased cattle. They were allowed to mingle freely together for three months, receiving the same feed, water, and care. During all this time, the herd was under the constant supervision of a veterinary inspector, who made daily observations of their temperature, etc. The ten head of healthy cattle remained healthy, showing that the disease is not transferable under the conditions ordinarily found.

Experiments in inoculation of healthy animals with blood and discharges from the diseased ones also proved negative. The pathology of the disease remains to be cleared up, and further research is to be made; but it is satisfactory to know that whatever its nature and cause, the disease is not contagious.

The investigation of bovine hæmaturia "red water" is continuing, and satisfactory progress made. We hope to have material for publication on this subject before long. Excellent work has also been done at this laboratory in the identification of the internal parasites found in animals in British Columbia.

Lethbridge.—The laboratory near this city has been under the supervision of Dr. W. L. Hawke since June 26, 1915, when Dr. A. Watson left on military leave. During this period the work of the laboratory has consisted almost exclusively in making complement fixation tests for the diagnosis of dourine. The total number of tests, including controls, reaches the large total of 10,148, entailing an immense amount of careful, highly technical work. This has been performed in a highly satisfactory way by Dr. Hawke and his assistants.

IMPORT INSPECTIONS FROM UNITED STATES AND NEWFOUNDLAND.

	Horses.	Mules.	Cattle.	Sheep.	Swine.	Goats.	Shetland Ponies.	Asses.	Burros.	Deer.
Charlottetown, P.E.I.	4									
Sydney, N.S.	53					1				
St. John, N.B.	35			15						
St. Stephen	26		1							
McAdam Junction	13		5				7			
Debec Junction	15									
Woodstock	10									
Florenceville	4									
Aroostook Junction	24									
Grand Falls	8									
St. Leonards	25									
Edmundston	31									
N.B. General	4									
Comins Mills, Que	3									
Beauceville	300									
Coaticooke	16		1							
Beebe Junction	104		1							
Sherbrooke	28		1							
Highwater	20									
Lacolle Junction	539									
Athelstan	1,556		3							
Dundee	37		5							
St. Agnes de Dundee	5									
Cornwall, Ont	5									
Prescott	34		1							
Morrisburg	9	1	21							
Brockville	24									
Kingston	23									
Toronto	8									1
Niagara Falls	59	2	17							
Bridgeburg	1,298	9	2	1						
Windsor	79,077	5	29	1	6					6
Sarnia	1,061		9		4					
Sault Ste. Marie	9									3
Port Arthur	3									
Rainy River	12	2	1							
Fort Frances	55	4	7				2			
Emerson, Man.	1,064	155	160			3				
Gretna	163	13	59	4,625						
Snowflake	58		24							
Bannerman	33		27							
North Portal, Sask.	1,542	129	254	2		6		5		
Northgate	40		9			1				
Wood Mountain	285		9	9,712						
Big Muddy	440		14							
Willow Creek	247	2		3,813						
Sask. General	4									
Pinhorn, Alberta	8									
Coutts	532	36	132	20,449						
Twin Lakes	83		181							
Gateway, B.C.	21		6							
Kingsgate	555	29	57	9,595						
Rossland	10		13							
Grand Forks	15		99							
Midway	5		4							
Myncaster	3		1							
Bridesville	2		3							
Keremeos	13									
Osoyoos	22	4	1	494						
Huntingdon	86	1	109	11,377	14					
New Westminster	2		16							
White Rock	18		70	4,980		4				
Vancouver	30	25		11,847				2	10	
Victoria	2		29	1,198						
Total	89,820	417	1,384	78,109	24	15	9	7	10	9

SESSIONAL PAPER No. 15b

IMPORT INSPECTIONS FROM EUROPE AND ELSEWHERE.

Port.	Horses.	Cattle.	Swine.	Sheep.
Halifax, N.S.	2			
St. John, N.B.	17			
Montreal, Que.	38			
Quebec		144	2	70
Niagara Falls, Ont.	10			
Total	67	144	2	70

PURE-BRED IMPORTS.

HORSES.

Breed.	Great Britain.	United States.	Elsewhere.	Total.
Shire	6	1		7
Clyde	39	4		43
Thoroughbred	8	14		22
Hackney	2	4		6
Pony	1	2		3
Standardbred	2	107		109
Percheron		53		53
Shetland		4		4
Total	58	189		247

CATTLE.

Breed.	Great Britain.	United States.	Elsewhere.	Total.
Shorthorn	39	10		49
Guernsey	51			51
Ayrshire	29	4		33
Jersey	20	13		33
Red Polled	5			5
Holstein		12		12
Hereford		21		21
Galloway		2		2
Total	144	62		206

SWINE.

Breed.	Great Britain.	United States.	Elsewhere.	Total.
Yorkshire	2			2
Duroc Jersey		6		6
Ohio Improved Chester		4		4
Total	2	10		12

SHEEP.

Breed.	Great Britain.	United States.	Elsewhere.	Total.
Cheviot	70			70
Karakule		15		15
Romney		7		7
	70	22		92

DISEASED IMPORTS.

Port.	No. horses in infected shipments.	No. of shipments.	No. horses diseased.	Country of origin.	Action taken.
Fort Frances, Ont.	2	1	1	United States.	Returned.
North Portal, Sask	46	7	7	"	"
Big Muddy, "	2	1	1	"	"
Coutts, Alberta	3	1	1	"	1 slaughtered, 2 held for retest.
Midway, B. C.	1	1	1	"	Returned.
	54	11	11		

Thirteen cattle tested at Huntingdon were returned to the United States and one reactor earmarked.

ANIMALS INSPECTED FOR EXPORT.

Port.	Horses.	Cattle.	Sheep.	Swine.	Goats.	Calves.
Charlottetown to Newfoundland	27	692	548	156		
" " United States	1			2		
Summerside to Newfoundland		135	343			
" " United States				3		
Halifax to St. Pierre and Miquelon		21	11	20		
" " Demarara			20			
" " Trinidad			3	11		
" " Great Britain	1,362					
" " Newfoundland	5	2		3		
" " Bermuda	18	13	2	10		
" " Charlottetown			67		2	
" " United States	1					
Sydney to Newfoundland	145	542	251	141		
" " St. Pierre and Miquelon		31	59	3		3
St. John to (destination unknown)	6,045					
Montreal to France		12,438				
" " South Africa		1	145			
" " Great Britain	7,949					
Toronto to United States	9	25,376	3,896			4,036
" " Bermuda		292	1184 lambs			
	15,562	39,543	5,345 1184 lambs	349	2	4,039

SESSIONAL PAPER No. 15b

IMPORT TESTING.

Three thousand four hundred and thirty-four horses were tested on arrival from the United States and allowed to proceed to their destinations.

Entered at—	Number.	Entered at—	Number.
Halifax, N.S.	3	Sault Ste. Marie	3
St. John, N.B.	2	Port Arthur	2
St. Stephen	5	Rainy River	9
McAdam Junction	6	Fort Frances	46
Woodstock	3	Ontario General	2
Florenceville	3	Emerson, Man.	214
Aroostook Junction	24	Gretna	56
Grand Falls	8	Snowflake	56
St. Leonards	25	Bannerman	28
Edmundston	24	North Portal, Sask.	275
Quebec, Que.	2	Northgate	16
Comins Mills, Que.	3	Wood Mountain	219
Lake Megantic	4	Big Muddy	50
Beauceville	295	Willow Creek	109
Coaticook	15	Saskatchewan General	8
Beebe Junction	60	Pinhorn, Alta.	2
Sherbrooke	13	Coutts	323
Highwater	3	Twin Lakes	81
Abercorn	14	Alberta General	3
St. Armand	9	Gateway, B.C.	21
Lacolle Junction	238	Kingsgate	58
Noyan Junction	7	Rossland	4
St. Johns	496	Grand Forks	9
Athelstan	5	Midway	6
Dundee	4	Myncaster	3
St. Agnes de Dundee, Que.	2	Bridesville	2
Quebec General	6	Keremeos	13
Prescott, Ont.	7	Osoyoos	23
Morrisburg	8	Huntingdon	23
Cornwall	18	White Rock	7
Brockville	13	Vancouver	10
Kingston	8	Victoria	2
Toronto	7	Prince Rupert	5
Niagara Falls	13	White Horse, Y.T	2
Bridgeburg	48		
Windsor, Ont.	333		3,434
Sarnia	10		

STAFF CHANGES.

Appointments, resignations, etc., March 31, 1915, to March 31, 1916:—

APPOINTMENTS.

Veterinary Inspectors.—W. T. Patton, V.S.; T. H. Jagger, V.S.; A. M. Lloyd, V.S.; W. Jakeman, V.S.; J. H. Brown, V.S.

Inspectors.—W. J. Wheelhouse; R. Anderson, V.S.; G. L. Terry; G. E. M. Scott, J. J. Kelly.

RESIGNATIONS.

Veterinary Inspectors.—P. A. Gough, V.S.; J. Simpson, V.S.; W. T. Patton, V.S.; H. L. Bissonnette, V.S.; J. H. Brown, V.S.

TRANSFERS.

Veterinary Inspectors (from Meat Inspection).—D. E. Tulloch, M.R.C.V.S.; W. Moynihan, V.S.; H. R. Estes, V.S.; C. A. Mitchell, V.S.

DEATHS.

Veterinary Inspector F. C. Brown.
Veterinary Inspector B. A. Sugden.

Owing to the improvement in the situation in the United States with regard to Foot and Mouth Disease it was possible to dispense with the services of the following temporary inspectors during the year March 31, 1915, to March 31, 1916: J. Gillespie, H. Acton, J. Robinson, A. A. Joslin, G. Moore, E. Branigan, John Morris, W. A. Horne, W. J. Wheelhouse.

ON ACTIVE SERVICE.

4th August, 1914-31st March, 1916.

Inside Service.—Major C. H. L. Sharman, Captain T. C. Evans, B. V. Sc., Lieutenant R. H. L. Uglow, Lieutenant E. D. Perney, Lance-Corporal F. Dexter.

Outside Service.—Major E. C. Thurston, D.V.S., Captain A. Watson, V.S., Captain D. S. Tamblyn, D.V.S., Captain B. R. Poole, V.S., Captain C. Maconachie, V.S., Lieutenant W. F. Macdougall, V.S., Lieutenant F. J. Braund, V.S., Private G. H. Unwin, Private H. C. Evans, Private S. Metze, Private G. A. Cousins, Lieutenant A. E. Cameron, V.S. (resigned to go), G. S. Thornewill, V.S. (resigned to go), J. T. M. Hughes, M.R.C.V.S. (resigned to go), R. W. MacDonald, V.S. (resigned to go), J. J. Farrell, V.S. (resigned to go), J. Simpson, V.S. (resigned to go), J. H. Brown, V.S. (resigned to go).

MEAT AND CANNED FOODS DIVISION.

The work of this division has continued to increase. The demands of the war have greatly stimulated the packing industry, and in consequence the duties of our staff have been correspondingly increased. Under the constant and capable supervision of Dr. R. Barnes, Chief Meat Inspector, the service has been satisfactory, the inspection careful and efficient, and performed with the minimum of friction between the packers and the staff. We may justly claim our meat inspection to be as good as any we know of, and our stamp "Canada Approved" the guarantee of good, sound, wholesome meat.

Owing to the enormous demand of the British market, packers were unable during the past year to procure sufficient hogs in Canada to keep up the supply for this trade; in consequence of which they were forced to import into inspected establishments, 380,726 carcasses, of which 223,706 were in the form of singed hogs and 157,020 scalded hogs, together with 20,000,000 pounds of hams, etc.

This immense import of meats from the United States, nearly all of which entered inspected establishments, was, in accordance with the United States laws governing exports and our Meat and Canned Foods Act regarding the entry of meats into inspected plants, inspected and passed in the country of origin, and its shipment from the United States was supervised by their officers. Such meats were subjected to a close supervision by our inspectors upon their entry into Canadian plants, where all that was intended for export to Great Britain was separately handled, cured, and boxed. It was then shipped under special brands in order that, while it had been handled by Canadian firms and given a Canadian cure, it should not be shipped or sold as Canadian bacon, which at the present time has a splendid reputation in Great Britain, and brings a price second only to the best Danish or Irish cures.

Owing to the number of officers who were granted military leave and who resigned for overseas service, we were extremely short handed during the whole year, although we held two examinations, one in April at points throughout Canada, at which sixty veterinarians wrote, of whom thirty-three were successful, and a special examination at Laval University on May 18, at the close of the college year, in order that their graduating class might qualify for appointment. At the latter ten candidates wrote and five were successful.

The increasing importance of the duties of lay inspectors made it highly desirable that a standard of qualification for the position should be established. It was therefore decided that applicants for such positions must pass an open competitive examination in writing, spelling, arithmetic, composition, and practical questions on subjects met with in the daily operation of a packing-house, and that the appointees must be men of sobriety and steady habits, in good health, and not over forty years of age. Judging from the appearance and qualifications of the new appointees, this method is a distinct improvement and will tend to much better work. It is brought about under an amendment to the regulations passed by Order in Council under date of January 8, 1916.

The practice of the periodic transfer of inspectors is working to the advantage of the service. While the department does not authorize such transfers more often than it deems absolutely necessary, owing to the expense and at times the personal discomfort and inconvenience of our officers, yet circumstances arise which make such moves not only advantageous but necessary in order that the work may be better supervised.

In the three large centres, namely, Toronto, Montreal, and Winnipeg, the inspectors in charge of the different establishments meet once a week for the purpose of discussing the work in general. Judging from the results obtained, these meetings should continue, as they tend to uniformity and co-operation—the balance-wheel of success in a service such as this.

From our records in connection with slaughter, the following information is submitted:—

Cattle slaughtered	542,154.	Increase over 1914-15, 11,729 or 2.21 per cent.
Sheep "	403,147.	Decrease under 1914-15, 44,026 or 9.84 per cent.
Swine "	2,363,693.	Decrease under 1914-15, 234,645 or 9.03 per cent.

The provinces show increases or decreases as follows:—

Province.	Cattle.		Sheep.		Swine.	
	Head.	Per cent.	Head.	Per cent.	Head.	Per cent.
Ontario	+ 38,374	18 14	+ 21 013	14 49	+ 89,447	6 48
Quebec	- 38,417	17 73	- 16 835	11 56	- 2,700	0 1
Manitoba	+ 6,177	15 95	- 16 058	38 61	- 103,935	36 62
Saskatchewan	+ 3,307	233 87	+ 2 603	51 90	- 83,147	42 20
Alberta	+ 6,685	17 04	- 9,318	21 00	- 136,880	40 61
British Columbia	- 4,858	23 53	- 18,846	48 07	- 28,296	41 26
New Brunswick	- 53	100 00	- 4,676	40 56		
Nova Scotia			- 1,521	100 00		
Prince Edward Island	+ 514	23 38	- 418	3 20	+ 804	3 87

The percentage of slaughter for each province to the total for all Canada:—

Province.	Cattle.	Sheep.	Swine.
	Per cent.	Per cent.	Per cent.
Ontario	46·09	41·23	60·44
Quebec	32·88	31·94	16·38
Manitoba	8·28	6·36	8·67
Saskatchewan	·87	1·89	1·89
Alberta	8·47	8·69	9·94
British Columbia	2·91	5·05	1·70
Maritime Provinces	·50	4·84	·98

While the records show an increase in swine killings in Ontario, this is undoubtedly due to the large shipments of live hogs from the western provinces.

CARCASS CONDEMNATIONS.

Cattle.—The number of carcasses condemned this year being 1·95 per cent of total kill against 1·45 per cent last year, it is satisfactory to note that carcasses condemned for tuberculosis only represent 31.20 per cent of total condemned against 40·14 per cent last year.

Those condemned for bruises and imperfect bleeding also show a small decrease.

Calves condemned for immaturity are much higher than last year, being 48 per cent of total condemned against 42 per cent.

Emaciated cattle were sent to slaughter in much larger numbers this year, high prices being no doubt an inducement.

Swine.—It is regrettable that a much larger proportion of hogs were condemned for tuberculosis than last year, the percentage of total carcasses condemned being 61·76 per cent against 53·16 per cent.

It is gratifying to note the decrease in condemnations for hog cholera, 81 carcasses against 1,084 last year.

Carcasses were condemned for *cysticercus cellulosæ* to the extent of 545 against 478 last year.

Sheep.—The increase in sheep condemned is nearly all made up of emaciated and bruised carcasses, possibly caused by overloaded cars during the extremely hot weather.

Portions condemned.—In almost all cases these show increases over last year, and call for no particular comment.

IMPORTS AND EXPORTS.

In studying these figures the first thing we notice is the large amount of beef and pork imported and exported.

To enable our Canadian packers to meet their requirements of bacon hogs for shipment to England, it was necessary from September, 1915, to March 31, 1916, to import singed and scalded dressed hogs from the United States to be cured in Canada and shipped as Canadian-cured United States product, 380,700 dressed hogs weighing around 40,000,000 pounds; also, about 20,000,000 pounds of backs, bellies, hams, etc.,

all of which might have been produced in Canada. Instead, we find a decrease in all but two provinces, while hogs touched the highest price on record, viz., $13 per cwt.

During 1915-16, hogs were from one to two dollars per cwt. higher in Canada than in the United States, and the shipments of live animals across the line did not amount to anything like former years.

While in cattle the export of 241,000 head was largely made up of stockers and feeders, it is unfortunate that these were not retained by Canadian farms.

Our export of bacon for the year amounted to 167,000,000 pounds. The export of beef also shows a large increase over last year, from 29,000,000 to 53,000,000 pounds.

In comparison with Denmark and Ireland, area and possibilities considered, Canada does not show up nearly as well as she should.

KILLINGS.

Year.	Canada.	Denmark.	Ireland.
1912	1,650,966	2,084,786	1,416,490
1913	1,564,246	2,215,850	1,181,285
1914	2,255,479	2,651,041	1,266,620
1915	2,616,461	1,960,965	1,376,063

FRUIT AND VEGETABLES.

The sanitary conditions in the fruit and vegetable canneries have been well maintained, and the quality of the raw material used was quite up to the average.

Considerable work was done during the past year in connection with evaporated apples. Owing to the vigilance of our officers, this product was offered for sale in a much better condition than ever before. The observance of the standard for moisture-content was insisted upon, in consequence of which no complaints have reached this office regarding losses, which were common in other years owing to excessive moisture. The possibilities of a foreign trade in this product are enormous if shippers will only pack a proper article, the chief requirement being to keep down the water-content and to discontinue the practice of sprinkling the apples at the time of packing. Experiments conducted at this office have demonstrated beyond doubt that such a practice will cause a rapid decomposition of the product, irrespective of the condition at time of packing, or method, manner or condition of storing and handling afterwards.

CONDENSED MILK.

There is very little to be said regarding this product. Its very nature compels the manufacturers to maintain their plants in a sanitary condition, otherwise the keeping qualities of the finished article would be seriously affected. There is perhaps no manufactured food which requires such care as this. The supervision begins at the farm on which the milk is produced, and continues until the article is ready for use.

MEAT AND CANNED FOODS DIVISION.

STAFF.

Chief, Meat and Canned Foods Division—R. Barnes, V.S.

Travelling Inspectors, M. and C. F. Division—H. H. Ross, V.S.; M. J. Kellam, V.S.

In charge of Montreal—L. A. Willson, V.S.

In charge of Toronto—F. H. S. Lowrey, V.S.

In charge of Winnipeg—C. D. McGilvray, M.D.V.

In charge of Prince Edward Island—W. J. Pethick, V.S.

Chief Travelling Inspector, Fruit and Vegetable Canneries—C. S. McGillivray.

Canning Inspectors—A. Bowlby, H. S. Switzer, F. W. Gray.

ADDITIONS TO STAFF.

Veterinary Inspectors.—J. O. Allan, V.S.; Wm. Bright, V.S.; M. Chagnon, M.V.; O. Christian, V.S.; R. Clegg, V.S.; I. E. Croken, V.S.; O. S. Dickinson, V.S.; C. M. Flanders, V.S.; S. H. Kesten, V.S.; S. E. Lawrence, V.S.; J. E. LeBlond, V.S.; D. McDonald, V.S.; J. E. Mumford, V.S.; R. Paquette, V.S.; A. Robertson, V.S.; P. E. Simard, M.V.; H. W. Steeves, V.S.; W. F. R. Stubbs, V.S.; W. R. Wood, V.S.; H. M. Younghusband, V.S.

Lay Inspectors.—J. N. Ellah, V.S.; E. C. Oliver, V.S.; J. C. O'Connor, J. Rowntree, Smith Shaw, W. T. Wenborn.

Canning Inspector.—F. W. Gray.

TRANSFERS.

To C. D. Division: Estes, H. R., V.S.; Moynihan, Wm., B.V.Sc.; Symes, J. W., D.V.S.; Tulloch, D. E., M.R.C.V.S.

RESIGNATIONS.

Bright, S. G., V.S.; Fagin, H. W., V.S.; Kesten, S. H., V.S.; MacFadzean, W. B., V.S.; Pook, G. G., V.S.; Swail, L. H., V.S.; Seymour, Wm., V.S.; Whitehead, Geo., B.V.Sc.; Flanders, C. M., V.S.

DISMISSALS.

Graham, W. A. D.; Mallett, H. W.; Paquette, R. S., V.S.; Wall, S. L., V.S.

PROLONGED LEAVE OF ABSENCE.

Ardill, A.; McEwen, N. E., V.S.; Lundie, A. C., V.S.; Nelson, H. D., B.V.S.

(On Active Service): Brunet, O., M.V.; Colebourn, H., V.S.; Collet, H. B., V.S.; Daigneault, F. A., M.V.; Douglas, K. L., V.S.; Elliott, H. J., M.D.V.; Finnemore, C. W., V.S.; Walsh, F. A., V.S.

SESSIONAL PAPER No. 15b

ESTABLISHMENTS UNDER INSPECTION MARCH 31, 1916

No.	Name.	Place.	Inspectors.
1	Armour & Co.	Hamilton	A. C. Ramsay, V.S. J. G. Davidson, V.S. J. E. A. Duhamel, M.V. John Wright.
2A	Matthews-Blackwell, Ltd.	Hull, P.Q.	J. Langevin, M.V. J. Steen, V.S. A. W. Younghusband, V.S. John Terrance.
2B	" "	Brantford	W. R. Bell, V.S. G. C. Cockerton, V.S. C. M. Flanders, V.S.
2C	" "	Peterborough	W. A. Henderson, V.S. J. E. Bennett, V.S.
2D	" "	Montreal	W. H. James, V.S. M. Chagnon, M.V. G. W. Starnaman, V.S. A. J. Champion. A. E. Hawkins. Geo. Jones.
2E	" "	Toronto	C. S. Anderson, V.S. J. W. Fisher, V.S. J. E. Morse, V.S. W. J. Blainey. J. H. Mumford.
4A	Wm. Davies Co., Ltd.	"	A. R. Torrie, V.S. T. W. R. McFarlane, V.S. D. R. Bone, V.S. F. Fisher, V.S. J. H. George, V.S. Wm. Howard P. Kingston. J. W. Lee. J. R. Songhurst.
4B	" "	Montreal	C. W. McIntosh, V.S. F. R. Armstrong, V.S. J. E. M. Lefebvre, M.V. W. R. Wood, V.S. J. F. Campeau, M.V. E. Lallemand. T. O. Paquette. G. W. Walsh.
5	Municipal Abattoir	Toronto	D. C. Tennant, V.S. A. W. Beach, D.V.S. A. C. Tanner, D.V.S. A. C. Walker, D.V.S. E. E. White.
7	Harris Abattoir Co., Ltd., St. Clair Ave.	"	R. H. Cook, V.S. R. Clegg, V.S. L. E. Cruikes, V.S. W. J. Peddlar, V.S. T. H. Richards, V.S. A. Robertson, V.S. Wm. Tennant, V.S. A. J. Hodgins. J. J. Kelly. T. K. Kent. H. Newton. J. W. Nichols. J. Rowntree.
7A	Harris Abattoir Co., Ltd., Strachan Ave.	"	C. L. Wallace, V.S.

ESTABLISHMENTS UNDER INSPECTION MARCH 31, 1916.—*Continued*

No.	Name.	Place.	Inspectors.
9	Gunn's, Limited	Toronto	E. R. Farewell, V.S. Wm. Bright, V.S. D. McDonald, V.S. Chas. Brittain. Edwin Cox. J. N. Ellah, V.S. Ernest Hunter. E. C. Oliver, V.S.
10	F. W. Fearman Co., Ltd	Hamilton	C. J. Johannes, V.S. C. S. Cain, V.S. H. Garrett, B.V.S. Wm. Lawson, V.S.
11	Ingersoll Packing Co	Ingersoll	R. D. Orr, V.S. J. E. Mumford, V.S. A. G. Murray, V.S.
13	Whyte Packing Co., Ltd	Stratford	F. A. McNally, V.S. G. C. Brownridge, V.S.
17	Jones Packing & Prov. Co	Smiths Falls	J. B. White, V.S.
18	Swift Canadian Co., Ltd	Winnipeg	J. D. Ross, V.S. F. C. Bishop, V.S. J. E. Lawrence, V.S. J. H. Shonyo, V.S. J. L. Trudeau, M.V. C. H. Johnston. W. G. Williams.
18B	" " "	Edmonton	H. C. Leslie, V.S. R. D. Boast, V.S. G. A. Ledgerwood, V.S. J. H. Part, V.S. P. E. Simard, M.V. H. Christman. E. J. Laidlaw.
18C	" " "	Toronto	T. M. Pine, V.S. A. A. Bélanger, M.V. C. S. Dickinson, V.S. T. E. H. Fisher, V.S. W. Kime, V.S. G. P. McKenzie, V.S. F. L. Wingate, V.S. H. M. Younghusband, V.S. A. E. Harvey. Wm. McCabe. J. T. Newton. J. C. O'Connor. Smith Shaw.
19	Gordon, Ironside & Fares Ltd	Winnipeg	F. C. Jones, V.S. H. Pomfret, V.S. J. W. Nichols, V.S. J. G. McDonald, V.S. R. H. Lyon.
19A	" " "	Montreal	J. R. Young.
19B	" " "	Moosejaw	J. W. Purdy, V.S. J. R. English, V.S. J. E. LeBlond, M.V R. F. Jackson. A. J. Tapley.
20	Gallagher, Holman & Lafranco	Winnipeg	A. R. Walsh, V.S. C. Brind, V.S. T. F. Coleman.
21	Western Packing Co., Ltd	"	J. R. N. Harrison, V.S. R. B. Dellert, V.S.

SESSIONAL PAPER No. 15b

ESTABLISHMENTS UNDER INSPECTION MARCH 31, 1916.— *Concluded.*

No.	Name.	Place.	Inspectors.
22	Montreal Union Abattoir..	Montreal	E. Dufresne, M.V. C. D. Bancroft,. D.V.S. A. R. Douglas, V. S. N. W. Reid, M.V. A. Angrignon. H. Beaudoin.
23	P. Burns & Co., Ltd.	Calgary	J. A. McLeish, V.S. O. Christian, V.S. H. C. Storey, V.S. H. W. Steeves, V.S. T. J. McLelland. Geo. Murton. C. E. Smith. W. T. Wenborn.
23A	P. Burns & Co., Ltd.	Edmonton	I. Christian, V.S. W. B. R. Knowles, V.S. F. Lefebvre, M.V. W. H. Wheeler.
23B	"	Vancouver	E. A. Bruce, V.S. J. Dickinson, V.S. J. G. Jervis, B.V.Sc. A. E. Rutherford.
24	Wm. Clark Co., Ltd	Montreal	G. Lemieux, M.V.
25	Montreal Abattoirs Limited	"	J. N. L. Couture, M.V. G. E. Dercme, M.V. E. C. Gauvin, M.V. J. A. Thesnet, M.V. Remi Benoit. Henri Pilon.
27	Gainers, Limited	South Edmonton	R. G. Tupling, V.S. L. R. Walkinshaw.
28	W. Wight & Co	Toronto	Denis Brown.
29	N. K. Fairbank Co., Ltd.	Montreal	H. Muzzer.
31	Chatham Packing Co., Ltd	Chatham	J. R. Thompson, V.S. A. A. H. Carley, V.S.
32	R. Taillefer & Cie.	Montreal	D. McDonald
47	Société S.P.A	"	H. Macey.
50	Davis & Fraser	Charlottetown	C. J. Bousfield, V.S.

ESTABLISHMENTS UNDER TEMPORARY INSPECTION, APRIL 1, 1915, TO MARCH 31, 1916.

Number	Name.	Place.
12	Prince Edward Island Railway	Kensington, P.E.I.
15	John Reop	Charlottetown, P.E.I.
34	Sussex Packing Co	Sussex, N.B.
35	New Brunswick Cold Storage Company	St. John, N.B.
36	W. A. Leard	Charlottetown, P.E.I.
36B	W. A. Leard	Summerside. P.E.I.
40	Aylmer Canning Co	Aylmer, Ontario.
41	Prince Edward Island Railway	Bradalbane, P.E.I.
48	R. O'Leary	Richibucto, N.B.
51	J. H. Myrick & Co	Tignish, P.E.I.
52	Sims Packing Co	Charlottetown, P.E.I.
53	Prince Edward Island Railway	Summerside P.E.I.
57	P. MacNutt & Son	Malpeque, P.E.I.
60	Fred Magee	Port Elgin, N.B.
64	P. C. Gallant	Summerside, P.E.I.

SESSIONAL PAPER No. 15b

DISEASES FOUND AT ESTABLISHMENTS UNDER INSPECTION.

Diseases.	Cattle.			Sheep.			Swine.			Poultry.
	Carcasses	Portions.	Lbs.	Carcasses	Portions.	Lbs.	Carcasses	Portions.	Lbs.	Lbs.
Abscess	17	22,879		15	340		25	2,610		
Actinomycosis	40	22,804			1		2	1,608		
Adhesions		8,692			374			10,691		
Ascitis				1			1			
Arthritis	1						6	4		
Angiomatosis		1,825								
Bruises	130	56,227	7,806	20	2,565	55	14	17,349	64,395	
Carcinoma	4									
Cripples	4	150		1	31		6	6,884		
Cysts		243						2,833		
Cysticercus Bovis	205	1,842								
" Cellulosæ							545	156		
" Ovis				3	59					
" Tenuicollis					134					
Congestion		56			8		2	2,359		
Cirrhosis		15						6,020		
Decomposed			106,476			4,641			143,289	
Dirty		549	353,448			2,771		174	120,983	
Emaciation	695			225			76			
Enteritis	17			7			93			
Emphysema	3	4		1			7	1,096		
Hernia							2	116		
Hydraemia	46			19						
Hog cholera							81			
Immaturity	5,075									
Improper bleeding	277			85			239			
Inflammation	23			8			42			
Icterus	5			13			39			
Induration								116		
Metritis	11			2			13			
Mucoid degeneration	94						2			
Mammitis	5	4						27		
Melanosis		6		2			1	59		
Necrosis		273			5,975			15,864		
Nephritis	34			5			16			
Pyrexia	1						3			
Parasites		46,886			102,511			100,340		
Pericarditis	53			1			10			
Peritonitis	59			8			148			
Pleuritis	10			3			8			
Pneumonia	80			107			253			
Pyaemia or septicaemia	135			38			598			
Sexual smell							79	334		
Skin diseases							3	1,221		
Sarcoma	5			1			9			
Sour			95,142			2,239			136,787	
Stale	38						12			
Septic infection	150						1			
Tuberculosis	3,297	22,249		4	42		4,085	780,891		
" pseudo				6						
Tumours	2	20		2			7	19		
Uraemia							12			
Various	31	11,313	3,468	18	107		77	466	1,668	
Damaged by fire			50							
Total	10,566	196,047	566,390	591	112,147	9,706	6,785	951,231	467,064	2 and 376 cases
Found dead	283			417			1,480			

The following summary shows the results of post-mortem inspections of cattle, sheep, and swine from April 1, 1915, to March 31, 1916:—

Cattle marked "Canada Approved"	531,588
Carcasses of cattle "Condemned"	10,566
Percentage of cattle "Condemned"	1·95
Portions of cattle "Condemned"	196,047
Sheep marked "Canada Approved"	402,556
Carcasses of sheep "Condemned"	591
Percentage of sheep "Condemned"	·14
Portions of sheep "Condemned"	112,147
Swine marked "Canada Approved"	2,357,111
Carcasses of swine "Condemned"	6,582
Percentage of swine "Condemned"	·28
Portions of swine "Condemned"	951,231
Total number of carcasses "Passed"	3,291,255
Total number of carcasses "Condemned"	17,739
Percentage of carcasses "Condemned"	·53
Total number of portions "Condemned"	1,259,425

In addition to the animals slaughtered at inspected establishments, the following amounts of dressed and cured meats and lard, etc., were received during the fiscal year from foreign countries:—

	Lb.
Beef	9,046,195
Mutton	449,770
Pork	52,603,260
Lard	4,033,988

During the course of reinspection the following meats were condemned:—

——	Cattle.	Sheep.	Swine.	Poultry.
	lb.	lb.	lb.	lb.
Bruised	7,806	55	64,392	.....
Decomposed	106,476	4,641	143,289	.....
Dirty	353,448	2,771	120,983	.....
Sour	95,142	2,239	136,737	.....
Damaged by fire	50	.....	.....	.....
Various	3,468	.....	1,663	2,382
Total	566,390	9,706	467,064	2,382

Total amount condemned on reinspection, 1,045,542 pounds.

Customs statistics show that we imported and exported the following:—

	Imports.	Exports.
Cattle (live)	365	241,578
Sheep "	68,564	94,588
Swine "		9,925
Beef (pounds)	15,006,703	53,342,594
Mutton "	2,841,838	99,593
Pork "	60,502,494	167,671,813
Lard "	5,101,356	28,521
Canned meats (pounds)	306,205	11,047,931

In conclusion, I wish to express my appreciation of the loyal service rendered by all members of the staff, and especially by Dr. Hilton, Chief Veterinary Inspector, and Dr. Barnes, Chief Meat Inspector.

I have the honour to be, sir,
Your obedient servant,

F. TORRANCE,
Veterinary Director General.

BULLETINS PUBLISHED.

"A further contribution on the biology of Hypoderma Lineatum," by Seymour Hadwen, D.V.Sc. (Scientific Series, No. 21.)

"Observations on the migration of Warble larvæ through the tissues," by Seymour Hadwen, D.V.Sc. (Scientific Series, No. 22.)

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The late Charles Caniff James, C.M.G., M.A., LL.D., F.R.S.C.
Commissioner, Agricultural Instruction Act, 1912-16.

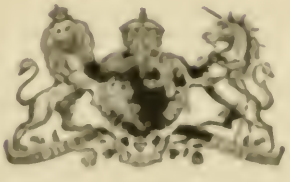
REPORT

ON THE

AGRICULTURAL INSTRUCTION ACT

1915-1916

PRINTED BY ORDER OF PARLIAMENT



OTTAWA
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1917

[No. 15c—1917.]

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OTTAWA, December 31, 1916.

To the Honourable MARTIN BURRELL,
Minister of Agriculture,
Ottawa.

SIR,—I have the honour to present the report for the fiscal year 1915-16 on the work performed by the several provinces of Canada with the funds provided under the Agricultural Instruction Act.

While the preparation of this report devolved upon me owing to the decease of my predecessor, Charles Caniff James, in June last, the work described herein was performed entirely within the period of his administration.

I have the honour to be, sir,

Your obedient servant,

W. J. BLACK,
Commissioner.

REPORT

ON THE

AGRICULTURAL INSTRUCTION ACT

FOR THE FISCAL YEAR 1915-16.

Tabled in pursuance of Section 8 of the above-named Act.

Province.	Grant.	Date.	Amount.
	$ cts.		$ cts.
Ontario	266,013 64	May 29, 1915	133,006 82
		Jan. 17, 1916	133,006 82
Quebec	215,310 70	June 18, 1915	107,655 35
		Oct. 4, 1915	107,655 35
Manitoba	64,421 31	July 20, 1915	32,210 65
		April 3, 1916	10,000 00
		May 16, 1916	22,210 66
Saskatchewan	68,011 04	July 16, 1915	34,005 52
		July 20, 1916	34,005 52
Alberta	56,528 82	June 18, 1915	28,264 41
		Nov. 24, 1915	28,264 41
British Columbia	58,265 94	April 20, 1915	10,000 00
		June 2, 1915	19,132 97
		April 5, 1916	29,132 97
Nova Scotia	68,001 87	June 11, 1915	34,000 93
		Aug. 30, 1915	34,000 94
New Brunswick	54,308 40	June 8, 1915	27,154 20
		Oct. 25, 1915	27,154 20
Prince Edward Island	29,138 28	June 11, 1915	14,569 14
		Feb. 17, 1916	8,000 00
		Mar. 24, 1916	6,569 14
Ontario Veterinary College	14,869 56	No payment made in 1915-16	
School of Veterinary Science, Montreal	5,130 44	Mar. 30, 1916	5,130 44
	900,000 00		900,000 00

ALLOTMENT OF GRANTS OF 1915-16.

—	Ontario.	Quebec.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Nova Scotia.	New Brunswick.	Prince Edward Island.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Agricultural Colleges and Schools— Capital Expenditure, i.e., Buildings, Equipment, Furnishings.	81,413 64	11,000 00	.....	.....	2,000 00	.....	7,500 00	10,000 00	4,000 00
Salaries, Expenses and Maintenance, Instruction, College Extension, research.	12,000 00	49,000 00	.....	22,800 00	36,000 00 Schools of Agriculture give Instruction in Household Science.	.....	20,000 00	6,500 00	.....
Instruction and Demonstration— Including salaries of Instructors, and Inspectors and Superintendents and all or part expenses connected with one or more of the following, i.e., District Representatives, Short Courses, Demonstration Farms, Demonstration Trains, Demonstrations in Soil and Drainage, Horticulture, including Fruit and Vegetable growing; Instruction in Co-operation and Marketing, Live-Stock, Dairying, Poultry and Bee-keeping, Field Crops; Seed Improvement, Boys' and Girls' Work, Institute Lectures, Meat Curing and Abattoir Work, Maple Products, Fruit Canning Investigations, Competitions.	150,200 00	131,810 70	47,000 00	35,700 00	15,200 00	38,500 00	26,500 00	23,000 00	8,875 00
Elementary Agricultural Education— Training of Teachers, Household Science, School Gardens, Grants.	20,000 00	23,500 00	200 00	1,000 00 Instruction and Demonstration and Publicity Votes drawn upon.	.....	15,000 00	10,000 00	10,000 00	11,791 14
Women's Work— Institute Organization, Domestic Science Courses, Supervision; Incidental Expenses.	2,000 00	Provided in English speaking districts out of Macdonald College grant.	7,000 00	4,500 00	1,500 00	Women's work charged to Miscellaneous.	3,000 00	3,000 00	2,890 00

Publicity—									
Printing and Publication of Bulletins and Reports; other forms of Publicity work	.....	Cost of publications provided under Instruction and Demonstration.	7,000 00	3,000 00	1,800 00	2,000 00	500 00	500 00	.....
Miscellaneous	.....	.....	3,221 31	1,011 04	28 82	2,765 94	501 87	1,308 40	1,582 14
Total	266,013 65	215,310 70	64,421 31	68,011 01	56,528 82	58,265 94	68,001 87	54,308 40	29,138 28

STATEMENT by Provinces of the Number of Persons whose Salaries are charged to the Dominion Grant, exclusive of Veterinary Colleges, and the amount so charged.

	Ontario.	Quebec.	Manitoba.	Saskatchewan.	Alberta.	British Columbia.	Nova Scotia.	New Brunswick.	Prince Edward Island.
1. Number of officers customarily employed and paid wholly from the Dominion grant	23	77	20	18	3	13	10	18	16
2. Number of officers customarily employed and paid in part from the grant	45	7	3	2	29	4	19	.....	.....
3. Number of officers employed regularly for part of the year and paid wholly from the grant	.....	.....	.....	4	.....	.....	4	.....	.....
Total number	68	84	23	24	32	17	33	18	16
Amount contributed for salaries by Dominion grant	$ 62,000 00	$ 51,000 00	$ 29,120 00	$ 40,100 00	$ 15,220 00	$ 19,380 00	$ 16,735 00	$ 24,700 00	$ 16,880 00

Total number of regular officers paid wholly or in part by Dominion grant..... 315
Total amount contributed to salaries by grant $305,135 00

District Representatives: In the case of Ontario where there are forty-five representatives, the practice is to charge approximately one-half of their salaries to provincial appropriations and one-half to the Dominion grant, and the above computation is made on that basis. Formerly a graduate or undergraduate of the Ontario Agricultural College was attached to each office as asssistant, but in view of the large number who enlisted and the difficulty in filling their places, it was decided to discontinue permanent assistants except in about half a dozen of the larger counties. At the present time, office assistance is provided, together with such special help as may from time to time be called for on account of inspection of school plots, short courses, and other forms of work that require periodical help. Regular assistants, where these are employed, office help and temporary assistants are not included in the enumeration.

Quebec has eleven district agronomists and four assistants, attached to the Provincial Department, whose salaries are paid from the grant, and Macdonald College has one.

Manitoba has twelve district representatives paid by the grant, Saskatchewan one, Nova Scotia five, Prince Edward Island two, while in British Columbia two men who act in this capacity are paid partly by the grant and partly by the province.

RECAPITULATION OF APPROPRIATIONS.

	1913-14.	1914-15.	1915-16.	1916-17.
Prince Edward Island.. ..	$ 26,529 85	$ 27,832 81	$ 29,138 28	$ 30,443 75
Nova Scotia..	54,288 45	61,144 45	68,001 87	74,859 28
New Brunswick	44,509 93	49,407 20	54,308 40	59,209 60
Quebec..	159,482 40	187,409 16	215,310 70	243,212 23
Ontario..	195,733 32	230,868 83	266,013 64	301,158 45
Manitoba..	51,730 05	58,075 45	64,421 31	70,767 21
Saskatchewan..	54,296 29	61,152 31	68,011 04	74,869 76
Alberta..	46,094 95	51,310 41	56,528 82	61,747 22
British Columbia..	47,334 76	52,799 38	58,265 94	63,732 50
Veterinary Colleges.	20,000 00	20,000 00	20,000 00	20,000 00
Total..	$700,000 00	$800,000 00	$900,000 00	$1,000,000 00

VETERINARY COLLEGES.

The Ontario Veterinary College, Toronto, and the School of Comparative Medicine and Veterinary Science, Montreal, participate under the Act in an annual grant of twenty thousand dollars on the basis of the number of British subjects enrolled as students in the previous year.

For the year 1915-16 the apportionment was as follows:—

	Students, 1914-15.	Grant, 1915-16.
Ontario Veterinary College	171	$14,869 65
School of Veterinary Science	59	5,130 44
		$20,000 00

Ontario Veterinary College.

One grant only had been paid to the Ontario Veterinary College at the close of the fiscal year, namely that of 1913-14, amounting to $15,371.91.

The expenditure, under date of November 25, 1916, was as follows:—

Contingencies: postage, stationery, temporary assistance, etc.	$ 1,642 51	
Equipment, library supplies, laboratory supplies, anatomical subjects	7,688 28	
Printing and advertising	597 59	
Rent, taxes, water rates	2,192 28	
Services of lecturers, demonstrators, etc.	3,316 74	
	$15,417 40	
Refund of duplicate payment	65 94	
		$15,351 46
Balance on hand		20 45

The grant contributes to the salaries of the following lecturers:—

Instructor in Clinics and Restraint of Animals, J. N. Pringle, M.R.C.V.S.
Demonstrator in Histology and Bacteriology, M. D. McKichan, B.A., M.D.
Demonstrator in Histology, H. G. Wilson, B.A., M.B.
Examiner, S. A. Cudmore, B.A. (Oxon).

STATEMENT OF ATTENDANCE, 1915-16.

	First Year.	Second Year.	Third Year.
Ontario	28	24	27
Quebec	4	2	1
Nova Scotia	3	1	3
New Brunswick	1		2
Prince Edward Island	1		1
Manitoba	5	4	7
Saskatchewan	6	5	6
Alberta	2	2	2
British Columbia			2
Great Britain			2
United States	7	13	5
British West Indies			2
New Zealand			1
Newfoundland	1		
Total	58	50	81
British subjects			149
Foreign countries			44
Total			189

STATEMENT OF ENROLMENT, 1912-16.

	British Subjects.	Foreign.	Total.
1912-13	186	88	274
1913-14	199	74	273
1914-15	171	61	232
1915-16	145	44	189

School of Comparative Medicine and Veterinary Science.

The grant to the School of Veterinary Science, Montreal, for 1915-16 was paid on March 30, 1916, and amounted to $5,130.44, based on an enrolment of fifty-six students. The following expenses were charged to the grant:—

1. Practical laboratory work, purchase and hire of animals for investigation, purchase of 3 microscopes and distillation apparatus	$ 820 73
2. Applied on salaries account	4,309 71
	$ 5,130 44

The following is the complete Financial Statement of the Institution for the year ended June 30, 1916:—

RECEIPTS.

Cash in bank, July 1, 1916	$ 252 49
Students' fees	2,325 50
Provincial Grant	3,500 00
Dominion Grant "Agricultural Instruction Act"	5,130 44
Rental of Hospital	666 60
From Laval University	10,000 00
Miscellaneous Receipts	150 03
Loans	3,000 00
	$ 25,025 06

DISBURSEMENTS.

Salaries of professors	$ 5,700 00
Salaries of officers	800 00
Salary of the appariteur	742 00
Administration expenses	472 43
Laboratory expenses	820 73
Rent of hospital	1,201 85
Miscellaneous	205 47
Printing and advertising	197 59
Bank loans repaid and interest	4,096 00
Land and new building	6,000 00
Architect's fee	300 00
Insurance, heat, light, etc	4,000 00
	$ 24,536 07
Balance on hand	488 99
	$ 25,025 06

Number of Students, British Subjects, in attendance in 1915-16:—

First year	16
Second year	21
Third year	21
	58

STATEMENT OF ENROLMENT, 1912-16.

1912-13	59
1913-14	56
1914-15	56
1915-16	58

SESSIONAL PAPER No. 15c

STATEMENT OF APPORTIONMENT OF GRANT, 1912-17.

	Ontario Veterinary College.	School of Veterinary Science.
1912-13 (Agricultural Aid Act)..	$15,500 00	$3,000 00
1913-14 (Agricultural Instruction Act)..	15,371 91	4,628 09
1914-15..	15,607 85	4,392 15
1915-16..	14,869 56	5,130 44
1916-17..	14,285 72	5,714 28

ONTARIO.

AGREEMENT, 1915-16.

1. District representatives	$114,000 00
2. Agricultural college—	
(*a*) Capital expenditure	81,413 64
(*b*) Salaries and expenses of additions to staff and maintenance	12,400 00
3. O.A.C. short courses, travelling and living expenses of winners of acre profit and live stock competitions	1,500 00
4. To encourage Agriculture and Domestic Science in High, Public, Separate and Continuation schools, to be available for grants and for travelling and living expenses of teachers and others in attendance at short courses or other educational gatherings, in addition to services, expenses and equipment, and to be paid out on the recommendation of the Department of Education	20,000 00
5. Educational work in connection with marketing farm products, including organization of co-operative societies, collection, printing and distribution of information on current prices and systems of marketing	6,000 00
6. Stock and seed judging, short courses and institute lecture work	6,500 00
7. Women's institute work, including courses in cooking, sewing, etc	2,000 00
8. Short courses for fall fair and field crop judges, including travelling and living expenses	3,000 00
9. Drainage work	6,200 00
10. Demonstrations and instruction in vegetable growing	3,000 00
11. Demonstration work on soils	2,000 00
12. Demonstration work in spraying, pruning and packing fruits	4,000 00
13. Work in bee-keeping	1,500 00
14. Equipment of laboratory and services of Assistant, Horticultural Experiment Station, Vineland Station	2,500 00
(Each appropriation to include services, expenses and equipment.)	
Total	$ 266,013 64

District Representatives, $110,555.

By far the larger portion of the grant to the province of Ontario was, as in former years, allotted to the work of the district representatives, the amount being $114,000, as against $100,000 in the previous year.

In 1911 (the year before the Dominion grant became available), the number of counties served by special representatives was twenty, and some $44,000 was expended by the province in this connection. In 1915 the number had increased to forty-five, and in most cases assistants had been provided together with such office help as was called for by the great increase in the work performed. The total appropriation in 1915, apart from county grants, amounted to $190,000, of which sum the province provided $80,000, and the Dominion grant the balance.

In the opinion of the president of the Ontario Agricultural College, "No better work is being done anywhere than these men are doing among the farmers of the province." It is not necessary in this report to present more than a summary of the activities engaging their attention, for the reason that this subject has been dealt with somewhat fully in previous reports, and will be found set out in detail in recent reports of the Ontario Minister of Agriculture. Of these activities the following list is typical, and represents the average county in the province.

1. Farmers' Clubs; 2. Stock and Seed Judging Courses; 3. Fruit Institutes; 4. Farmers' Institutes; 5. Apiary Demonstrations; 6. Drainage Surveys; 7. Ploughing Matches; 8. Egg Circles; 9. Six Weeks' Courses in Agriculture; 10. Junior Farmers'

Improvement Associations; 11. Acre Profit Competitions; 12. Feeding Hogs for Profit Competitions; 13. Baby Beef Competitions; 14. Inter-County Live Stock Judging Competitions; 15. Potato Variety Tests; 16. Corn Variety Tests; 17. Alfalfa Variety Tests; 18. Sweet Clover Variety Tests; 19. Potato Spraying Experiments; 20. Fruit Growers' Associations; 21. Fall Fairs; 22. Cow Testing; 23. Prize Grain Distribution; 24. Publicity Associations; 25. Patriotism and Production Campaign; 26. Pure Seed Centres; 27. Live Stock Census; 28. Rural School Fairs.

One of the most striking illustrations of growth is to be found in the School Fair movement, as indicated by the following figures:—

	1913.	1914.	1915.
Number of fairs held..	69	148	234
Number of schools included..	531	1,391	2,291
Number of children represented..	....	....	48,386
Number of settings of eggs given out.. ..	....	4,074	6,868
Number of plots..	....	23,872	51,234
Number of entries at fairs..	18,652	75,602	116,236
Number of persons attending fairs..	33,375	95,310	157,000

ONTARIO AGRICULTURAL COLLEGE.

New Buildings, $74,340.

This year witnessed the completion of the new Physics Building at the Ontario Agricultural College, Guelph, making the third building provided for in this way since Dominion assistance was first given in 1912. The buildings previously erected were the Field Husbandry and the Poultry Building, and to these should be added the completion of the Dairy Barn and the reconstruction of the Bacteriological Building, the total expenditure to date from the grants in this connection amounting to the sum of $222,236.

The new building is an imposing structure. Its purpose is to provide facilities for teaching and investigation work in soil physics, and it will form a very valuable addition to the equipment of the college. The building is a four-story, steel-framed structure, having a frontage of 101 feet 9 inches and a depth of 70 feet. The lower story is of stone, and the upper portion of red pressed brick with stone trim and slate roof. The partition walls are of tile. The floors of halls and stairways are of concrete or other fireproof material. The provision for heating, lighting and equipment of classrooms and laboratories is modern and up-to-date in all respects.

Salaries and Expenses, $10,021.

The assistance given by the grant has enabled the Ontario Agricultural College to further extend and strengthen its staff of lecturers and demonstrators. During the period covered by the report, the above sum was expended in salaries and expenses of eleven members of the staff, comprising two assistants in soil and drainage, two lecturers in horticulture, two lecturers in poultry work, a lecturer in chemistry, a lecturer in geology and soils, a lecturer in animal husbandry, a lecturer in farm management, and an assistant in bee-keeping. In addition to giving instruction to the students, assistance is given in the special work being carried on in the respective departments such as soil and drainage survey work, short courses, fruit growing, bee-keeping and poultry demonstrations, as described in succeeding paragraphs of this report.

MARKETING AND CO-OPERATION, $5,046

Since the organization of the co-operation and markets branch in 1914, much painstaking work has been performed in gathering information as to the various co-operative organizations in the province with a view to obtaining a clearer know-

ledge of their functions and the degree of efficiency with which their work is being carried on. It was felt that a complete survey of the field was essential before very much could be done in the way of giving assistance to existing organizations, or guidance in connection with new undertakings.

While associations of farmers having for their object the improvement of producing methods are numerous it is found that substantial and effective business organizations to undertake the marketing of farm products were very few in number, and that even the best of them left much to be desired.

The results of the inquiry lead to the belief that the time is ripe for concerted action looking to the formation of farmers' marketing associations, and it is the purpose and intention of the branch to assist, both in the reorganization of old societies and the formation of new ones, by giving instruction in (1) Methods of organization, (2) Basis of organization, (3) Business methods and practices. To this end a bulletin on organizing a co-operative marketing business has been issued.

During the past year, a number of fruit-growers' and other associations have been assisted to reorganize their business in older Ontario, while much effective work has been done in the newer districts. The Manitoulin Marketing Association, whose organization was assisted by the department, has been very successful in marketing wool, and will extend its business to include live stock and farm produce. The Rainy River Potato Growers' Association includes nearly all the farmers of the district in its membership, and a similar organization has been formed for Thunder Bay. Assistance has been given to the organization of seed centres for the production and sale of registered seed, while attention has also been devoted to the methods of marketing tender fruits and to the question of their wider distribution. In addition to the above, a monthly list of products offered for sale by co-operative associations is sent out to farmers' clubs and others, and has proved of great value. The cost of the work is met entirely from the Dominion grant, and amounts to date to the sum of $10,266.

SHORT COURSES AND LECTURES.

Farmers' Institute Courses, $5,588.

The Institutes Branch of the Ontario Department of Agriculture, co-operated with the thirty-three District Representatives in holding demonstrations in the judging of live stock during the winter months of 1915-16.

During the season, 1915-16, seventy-nine courses were held, occupying one hundred and fifty days. Besides, there were nineteen evening meetings held in conjunction with the courses. The total attendance at these courses was approximately 12,250. The classes of stock discussed by eighteen carefully selected, experienced live stock experts, were heavy and light horses, beef and dairy cattle, sheep, swine, and poultry. In addition to the live stock discussions, seed-judging was taken up by a qualified agronomy expert at several of the courses. All evening meetings, attended by mixed audiences, were devoted to discussions of live stock and other agricultural topics, while in many cases these meetings were also addressed by one of the many first-class Women's Institute speakers. The stock used for demonstrating at these courses was secured from local breeders and importers.

Demonstration Train.—In the autumn of 1915 a "Better Farming Special Train" was organized, and taken over the lines of the Canadian Pacific Railway in Ontario; over 15,000 attended the lectures and demonstrations given at each station at which the train stopped.

One car was devoted to each of the following branches of agriculture:—

1. Live stock.

2. A display of the most productive varieties of grains grown in Ontario, as well as illustrations of the advisability of early seeding, sowing plump grain, free from smut, etc.

3. A drainage and lightning rod exhibit.

4. Appliances used by the up-to-date dairyman.

5. Miniature modern poultry houses, feeding troughs, etc., as well as samples of the most approved poultry foods. This department also carried specimens of the most desirable and undesirable types of poultry.

6. Specimens of the noxious weeds and weed seeds most commonly found on Ontario farms.

Each department was in charge of an expert, capable of giving valuable instruction to visitors. Up-to-date literature containing information on all branches of agriculture was distributed. Not only were the farmers invited to visit the train, but special invitations were sent to the school children through the school boards and teachers, and the instructors took pains to make their exhibits as instructive as possible to the great number of children who visited the coaches.

Arrangements were made through the local Women's Institute to hold afternoon meetings for women, these meetings being addressed by one of the Department's Women's Institute speakers. They also were largely attended. Joint meetings were held in the evening, when addresses were given by women speakers and some of the specialists accompanying the train. A leading feature of these evening meetings was moving pictures illustrating modern agricultural operations. These proved to be not only entertaining but highly instructive.

The expenditure in connection with Short Courses in Stock and Seed judging, and the running of a Better Farming Special were met, with the exception of about $500, solely from the grant.

Judges' Short Courses, $3,082.

Short courses of instruction for judges at fall fairs and at field crop competitions were conducted as in former years both at the Ontario Agricultural College, Guelph, and at the Central Experimental Farm, Ottawa. The attendance at each of these points during the past season was about 200. The cost of the work is defrayed by the grant, and includes the expenses of those in attendance, as well as the services and expenses of the instructors.

Short Courses at Ontario Agricultural College, $2,148.

Provision is made under this head for meeting the travelling and living expenses of the winners of the Acre Profit and Live Stock Competitions for young men, held under the supervision of the District Representatives. Eighty-six winners were given free courses at the college in stock and seed judging during January, 1916.

Women's Institutes, $4,762.

Practically the whole of the outlay in connection with the demonstration lecture courses held throughout the province under the auspices of the women's institutes, is met by the grant. The following is a summary of the courses held during the season of 1915-16:—

A.—Food values and cooking—	
Number taking course	1,[illegible]
Aggregate attendance	14,8[illegible]
B.—Home nursing—	
Number taking course	48[illegible]
Aggregate attendance	4,[illegible]
C.—Sewing—	
Number taking course	2[illegible]
Aggregate attendance	5,[illegible]
Total number receiving instruction	2,[illegible]

Every effort is made to make the courses as practical as possible, and emphasis is placed on efficiency and economy in the choice and preparation of foods, and in the choice and making of clothes. The interest shown by farm women in patriotic efforts received great stimulation through these courses. Many institutes have decided to devote their whole attention to such efforts while the war continues, and to discontinue the courses for the time being. At the present time the women's institutes, not only in Ontario, but of other provinces as well, are deeply engrossed in the making of supplies and the raising of money for the Red Cross, having responded most generously to the calls for their support.

INSTRUCTION AND DEMONSTRATION.

Drainage Work, $6,190.

This work is under the direction of the Department of Physics at the Ontario Agricultural College, and, when necessary, assistance is lent by the district representatives. It includes the making of drainage surveys for farmers, demonstrations in tile draining, and the conducting of drainage demonstration plots. In the latter, half of the field is left undrained for comparison. Six more plots were started in 1915 and a demonstration was held in each, with an average attendance of seventy-six. This brings the total number of plots up to twenty-four. The season was unfavourable for the test, but partial returns, comprising fourteen plots, showed an average increase of $4.40 in crop values over the undrained land. The experiment will continue for a period of years.

The following is a statement of the drainage work performed during the past three years. The cost of the work is borne jointly by the Dominion grant and the province.

SUMMARY OF SURVEY.

Year.	Applications.	Surveys.	Acres surveyed.	Miles of drain.	No.	Demonstrations average attendance
1913	290	217	13,705	1,713	56	20·3
1914	296	250	13,386	1,673	23	20·9
1915	291	263	15,336	1,917	8	12·8

Vegetable Growing, $3,800.

The grant provides for the salary of the Vegetable Specialist and his assistant, travelling expenses and the expenses of the office, located at Toronto.

The work includes conferences with those engaged in the business of market gardening, addresses to agricultural classes, institutes and similar gatherings, correspondence and personal interviews, the carrying on of demonstration on a commercial basis and of experimental work with vegetable diseases and pests, such as Cabbage Root Maggot, Celery Blight. In connection with Celery Blight, fourteen demonstration plots were conducted, meetings held, and the results brought to the attention of growers all over the province. Most of the outside work is done in co-operation with the District Representatives.

Soils and Soil Survey Work, $3,646.

Two lines of work are being carried on at the Ontario Agricultural College by this division of the Department of Chemistry. The first embraces a preliminary soil survey. The work of actual charting was begun in June and continued through the

season. Eleven counties have been completed and the mapping done; five others are completed in part.

The second undertaking is the conduct of two demonstration plots on definite types of soil, one at Walsh, Norfolk county, on light sand, and another near the College on clay loam. At Walsh, where the sandy land was limed, manured and fertilized, the yield of potatoes was raised more than six-fold over the check plots, being more than 400 bushels per acre.

Other plots have been laid out and the material applied for an extensive experiment with different forms of lime materials on the acid, peaty soils of the Leamington marsh and on the heavy clay soils of Welland county.

Two new sources of potash are being studied in the fertilizer experiments, but conclusive results have not yet been arrived at.

The grant provides for the services of four demonstrators in this branch, together with expenses, supplies, equipment, etc.; also for a motor car to facilitate operations.

Fruit Demonstrations, $3,052.

The work in this connection is conducted partly through the Department of Agriture and partly by the Ontario Agricultural College.

During the season of 1915 the Department carried on extensive demonstrations of practical orchard methods in different parts of the province. This was very largely in five orchards, leased by the Department of Agriculture, and in a number of smaller orchards that were taken over simply for the season. In the leased orchards, which contain some 1,800 trees in full bearing, the entire work was undertaken, from the pruning in the spring to the marketing in the fall. These orchards were in most cases about the average of the province, that is, in a fair condition when taken over. To demonstrate just what results could be obtained, the trees were carefully pruned and thoroughly sprayed. Manure was shipped in from outside points and everything possible done to secure good crops of choice fruit. The results secured were far in advance of the expectations of the ordinary grower, and were verified by the best growers in each locality, who inspected them carefully. Very great interest is being taken in these orchards, particularly in Prince Edward and Lambton counties, meetings having been held in the orchard to show the growers of the neighbourhood the methods followed in looking after the trees.

In addition to the work in the demonstration orchards a very great deal of personal work has been done by the men working under this vote. The Department stands prepared to send one of its demonstrators to any orchard in the province, where the owner has asked for advice. In many cases the owners of the orchards to whom representatives have been sent have gathered together a number of their neighbours so that all may take advantage of the information supplied.

At the College the work performed comes under the supervision of the Horticultural Department, and is carried on by G. J. Culham, B.S.A., Lecturer in Horticulture, and H. S. Fry, B.S.A., Lecturer in Pomology, two of the lecturers provided by the grant. The work comprises co-operative orchard experiments conducted over a series of years in summer pruning of the Spy apple to hasten bearing, and the top-grafting of the Ben Davis to better varieties, and root pruning. Thirteen experiments are under way.

The causes and prevention of winter injury to apple trees were also investigated, in view of the numerous cases of injury reported. Assistance was also given to beginners in fruit growing in Northern Ontario, and much information gathered, which is of great value to settlers seeking advice.

The lecturer in Pomology takes entire charge of the First and Second Year Classes in Fruit Growing, and also of the fruit work of the graduating classes in Horticulture.

Bee-Keeping, $1,756.

The expenditure under this head is supplementary to the outlay by the Department of Agriculture, the amount provided from the grant during the year being $1,755.71. This branch of work is carried on from the Ontario Agricultural College, where the officer in charge also acts as lecturer. The grant provides for the services and expenses of a number of students who act as demonstrators and instructors. An educational campaign is being pursued, and sixty demonstrations were held during the season with a total attendance of nearly two thousand. Bee-keepers all over the province look to the College for information and assistance in their work.

Canning Investigations, $1,631.77

Acting on the recommendation of the Advisory Board of the Horticultural Experiment Station at Vineland, Ontario, a specialist has been appointed to carry on investigations in canning operations, and as to the disposal of the surplus products of the orchard and garden. Perhaps the most valuable part of the work hitherto performed relates to the canning of fruits and vegetables. To this end the small canning plant that had been provided out of provincial funds was supplemented by the equipment of a testing laboratory, the cost, together with the salary of the specialist in charge, being met out of the grant. All kinds of fruits and vegetables are being canned at this plant. Records are kept by varieties as to the qualities produced and their keeping qualities under different methods of treatment. Varieties are also tested to prove their value under canning factory conditions, with a view of recommending both to canners and growers just what varieties should be grown for this particular industry. Mr. Culverhouse, who has charge of the plant, was instructed by the Department, since the war, to can as much fruit as the plant would handle in order to supply the hospital demand. During the past season 30,000 pounds of jam and over 30,000 gallon cans of peaches and other fruit were put up. While work of this kind was never contemplated on anything approaching this scale, it has nevertheless resulted in giving the superintendent a very wide experience in the processing of the different fruits.

Other investigations have included the making of cider and vinegar, and bulletins have been issued describing the methods employed.

ELEMENTARY AGRICULTURE INSTRUCTION IN SCHOOLS, $20,347.

In the province of Ontario, grants in aid of Agricultural Education are awarded both to schools and to teachers qualifying for same under the regulations of the Education Department.

In the case of High Schools, Continuation Schools and Collegiate Institutes, where the prescribed courses are carried out, a grant not exceeding $100 is made to the board, but further grants of bonuses are made to the teachers conducting such courses, the amount being determined by their professional qualifications. In cases where such schools conduct experimental and demonstration plots in the school grounds in connection with class-room and laboratory instruction, the teacher receives a further supplementary bonus. The bonuses to teachers in schools of this class range from $30 to $120, the latter being paid to the holder of a high school professional certificate and the degree of B.Sc. (Agr.) who carries on courses extending throughout the year.

In the case of Public and Separate Schools the grants are on a similar basis, namely, to the Board and to the teacher. The requirements are the carrying out of the specified course of instruction, the conducting of Home and School Gardens, and planting and caring for the school grounds. The teachers' bonuses are determined by their professional qualifications, and by the length of the period during

which instruction is given. Boards receive grants ranging from $10 to $30; teachers holding Elementary Agricultural certificates receive bonuses ranging from $12 to $30. Those not certificated in Agriculture receive a bonus of from $5 to $15.

The grants and bonuses referred to are provided out of the Dominion grant, and the total amount so disbursed amounted for the year to $14,382.

The following statement gives the number of schools of all classes qualifying for grants during the period 1913-16:—

	1913.	1914.	1915.	1916.
High schools, Collegiate Institute and Continuation schools	2	11	15	21
Public and Separate schools	159	268	407	—

Of the 407 Public and Separate Schools qualifying in 1915, 222 conducted school gardens and 185 home gardens.

To prepare teachers to teach agriculture, and to qualify inspectors for the work of supervision, the following special courses are provided:—

(1) A summer school for public and separate school teachers, held during July at the Ontario Agricultural College, and leading to an elementary certificate in agriculture. The work prescribed covers sessions at the college in two consecutive years with a winter reading course between.

(2) A summer school for high school teachers, held at the Ontario Agricultural College during July. The course extends over two consecutive sessions, and leads to an intermediate certificate in agriculture qualifying the holder to teach the subject in continuation schools, high schools, and collegiate institutes.

The numbers in attendance at the summer schools in the years stated were as follows:—

	Public School Teachers.	High School Teachers.
1914—		
First year	64	16
Second year	32	13
1915—		
First year	54	18
Second year	23	19
1916—		
First year	116	18
Second year	46	15

In 1915, a course of two weeks' duration was provided for school inspectors at the college. Practically all the inspectors in the province attended.

The certificates above referred to are awarded by the Department of Education, but the instruction is given by members of the college faculty. The expenses of the students and of the courses are met by the grant.

In addition to the above, a degree B.Sc. (Agr.) is now given to students who complete two years in certain prescribed work in one of the universities of Ontario, followed by two years at the Agricultural College, the object being to provide highly qualified teachers of agriculture. Owing to war conditions, the newness of the establishment of this degree, and the yet undeveloped state of public opinion, there have not, hitherto, been many candidates.

It should be observed that, in addition to the special teachers' courses at the Ontario Agricultural College, the Education Department makes provision for a course of study in agriculture, with examinations, at the provincial normal schools. At these schools teachers-in-training may fit themselves for teaching subjects related to farming, nature and rural life, and it is from this source that those who hereafter qualify for teaching work will receive their agricultural training.

APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

(A.) Officers regularly employed, whose salaries are paid wholly from the Agricultural Instruction Grant:

ONTARIO AGRICULTURAL COLLEGE, GUELPH.

Lecturer in Poultry, F. N. Marcellus, B.S.A.
Lecturer in Farm Management, A. Leitch, B.S.A.
Lecturer in Rural Sociology, A. McLaren, B.S.A.
Lecturer in Geology and Soils, John Woodward.
Lecturer in Physics, J. R. Spry, B.S.A.
Soil Analyst, S. R. Curzon, B.S.A.
Demonstrator in Horticulture, H. S. Fry, B.S.A.
Demonstrator on Chemistry, W. L. Iveson, M.A.
Lecturer in Animal Husbandry, J. P. Sackville, B.S.A.
Poultry Specialist, J. P. Hales, B.S.A.
*Horticulturist, G. J. Culham, B.S.A.
Assistant in Soil Work, F. Bryant.
Assistant in Drainage Work, A. E. McLaurin.

DEPARTMENT OF AGRICULTURE, TORONTO.

Vegetable Specialist, S. C. Johnston, B.S.A.
Stenographers, two.
Director, Co-operation and Markets Branch, F. C. Hart, B.S.A.
Stenographer, Markets Branch, Miss Reid.

HORTICULTURAL EXPERIMENT STATION, VINELAND, ONT.

Assistant Experimentalist, P. E. Culverhouse, B.S.A.
In Charge Fruit Extension Work, O. J. Robb.
Official Butter Grader, J. H. Scott.

DEPARTMENT OF EDUCATION, TORONTO.

Director of Elementary Agricultural Education, Dr. J. B. Dandeno, Teacher of Domestic Art, Miss A. E. Robertson.

(B.)—Officers, regularly employed, whose salaries are paid in part from the Grant.

DEPARTMENT OF AGRICULTURE, TORONTO.

45 District Representatives.

*On Active Service

SESSIONAL PAPER No. 15c

COMPARATIVE STATEMENT of Expenditure of Provincial Funds for Agricultural purposes for the years 1913, 1914, and 1915, and estimated Expenditure for 1916.

Service.	1913. To Oct. 31.	1914. To Oct. 31	1915. To Oct. 31.	1916. To Oct. 31. (Estimated).
Department of Agriculture—				
Salaries; Contingencies; Incidentals and Miscellaneous	$ cts. 98,346 79	$ cts. 100,973 95	$ cts. 98,021 72	$ cts. 126,520 18
County Representatives	40,596 68	34,668 93	35,917 01	80,000 00
Live Stock Interests—				
Grants and Winter Fairs; Grants to Poultry Association and Horse Shows; Stallion Registration; Sheep Experiments, etc.; Spring Shows	38,793 66	38,563 78	43,079 87	40,152 73
Dairy Interests—				
Grants; Instruction and Inspection; Dairy School; Miscellaneous	58,574 35	58,701 09	54,991 40	62,712 70
Agricultural and Horticultural Societies—				
Insurance; Field Crop Competitions and Judges; Expert Judges; Exhibitions; Special Grants	129,473 98	125,548 10	123,867 11	173,504 66
Institute—Farmers' and Women's	32,952 25	27,323 52	23,187 08	31,069 34
Fruit Interests—				
Grants; Spraying Assistance; Special Crop Experiments; Cold Storage Experiments and Exhibits; San Jose Scale; Horticultural Experiment stations; Apiary Inspection; Demonstration Work	45,454 87	54,934 72	49,515 68	55,508 12
Ontario Veterinary College—				
Salaries and Expenses	32,929 74	33,529 22	28,989 00	32,057 77
Ontario Agricultural College, Macdonald Institute, and Ontario Experimental Farm—				
Salaries and Expenses	264,458 55	284,507 67	289,515 91	306,641 00
Total	741,529 87	771,811 06	775,491 31	908,725 50
Revenue	177,131 50	157,141 80	138,996 62	
Net total	564,389 37	614,669 26	636,587 72	

Note.—The above statement does not include expenditure under colonization, factory inspection and stationary engineers' branches.

In 1915 the Department of Education expended $47,377 in connection with agricultural education. Of this sum $39,225 went towards the cost of the work of the district representatives. In 1916 this was assumed by the Department of Agriculture, while the balance of the expenditure for this purpose was met from the federal grant.

ONTARIO.

GRANT 1915-16, $266,013.64.

SUMMARY STATEMENT, April 1, 1915, to March 31, 1916.

No.	Classification.	Grant 1915-16.	Balance April 1, 1915.	Total.	Expended to Mar. 31, 1916.	Balance on hand Mar. 31, 1916.
1.	District representatives	$114,000 00	$ 402 86	$114,402 86	$110,555 76	$ 3,847 10
2.	Ontario agricultural college.					
	(a) Capital	81,113 64	20,604 48	102,018 12	74,340 39	27,677 73
	(b) Salaries and expenses	12,400 00		12,400 00	10,021 32	2,378 68
3.	Short courses, O. A. C	1,500 00	763 51	2,263 51	2,148 28	115 23
4.	Agriculture and domestic science in schools	20,000 00	11,954 67	31,954 67	20,346 66	11,608 01
5.	Marketing of farm products	6,000 00	1,279 25	7,279 25	5,045 58	2,233 67
6.	Stock and seed judging: Institute short courses; lectures	6,560 00	3,618 66	10,118 66	5,588 07	4,530 59
7.	Women's institutes	2,000 00	7,806 87	9,806 87	4,761 60	5,045 27
8.	Judges' short courses	3,000 00	709 15	3,709 15	3,281 56	427 59
9.	Drainage work	6,200 00		6,200 00	6,189 66	10 34
10.	Demonstrations in vegetable growing	3,000 00	838 28	3,838 28	3,799 91	38 37
11.	Demonstrations on soils	2,000 00	1,645 67	3,645 67	3,645 67	
12.	" " fruit	4,000 00	3,349 52	7,349 52	3,052 10	4,297 42
13.	" " bee-keeping	1,500 00	308 02	1,808 02	1,755 71	52 31
14.	Horticultural experiment station	2,500 00		2,500 00	1,631 77	868 23
	Totals	$266,013 64	$53,280 94	$319,294 58	$256,164 04	$ 63,130 54
	Additional from 1914-15.					
	Lectures on Horticulture		433 45	433 45	209 25	224 20
	Demonstrations in live stock and poultry		3,097 80	3,097 80	1,027 20	2,070 60
	Miscellaneous		4,795 97	4,795 97	1,132 97	3,663 00
	Totals	$266,013 64	$61,6 8 16	$327,621 80	$258,533 46	$ 69,088 34

SESSIONAL PAPER No. 15c

DETAILS OF EXPENDITURE, APRIL 1, 1915, TO MARCH 31, 1916.

1. District Representatives.

Grant 1915-16	$114,000 00	
Balance April 1, 1915	402 86	
Expended to March 31, 1916		$110,555 76
Balance on hand March 31, 1916		3,847 10
	$114,402 86	$114,402 86

Brant	$2,223 82
Bruce	2,387 49
Carleton	2,284 16
Dufferin	2,013 86
Dundas	2,219 23
Durham	2,601 35
Elgin	2,319 05
Essex	2,787 18
Frontenac	2,187 06
Ft. William	1,019 71
Grenville	858 71
Glengarry	3,289 35
Gore Bay	2,735 63
Grey	3,066 02
Halton	2,694 27
Hastings	1,963 90
Haldimand	2,680 97
Kenora	3,308 17
Kent	2,839 71
Lambton	2,912 85
Lanark	3,250 93
Leeds	3,759 03
Lennox and Addington	3,657 65
Middlesex	3,133 17
Carried forward	$62,520 27

Brought forward	$62,520 27
Muskoka	1,561 95
Miscellaneous	4,241 82
New Liskeard	1,540 11
Northumberland	2,491 88
Norfolk	1,669 89
Ontario	2,589 31
Oxford	3,041 17
Prince Edward	2,353 59
Port Arthur	1,654 73
Peterboro	2,129 65
Peel	2,982 51
Rainy River	2,960 23
Renfrew	2,487 75
Sault Ste. Marie	1,841 14
Simcoe	2,803 83
Sudbury	1,519 08
Victoria	2,724 07
Waterloo	1,782 58
Welland	1,692 71
Wentworth	2,701 02
York	2,292 47
	$111,128 76
Less refunds	573 00
	$110,555 76

2. Ontario Agricultural College.

(a) *Capital Expenditure.*

Grant, 1915-16	$ $1,413 64	
Balance April 1, 1915	20,604 48	
Expended to March 31, 1916	.....	$ 74,340 39
Balance on hand March 31, 1916	.....	27,677 73
Total	$102,018 12	$ 102,018 12
Poultry building—		
Material	$ 1,312 52	
Labour	444 00	$ 1,756 52
Biological building—		
Material	1,469 87	
Labour	883 61	2,286 46
Physics building—		
Material	33,486 10	
Contracts	1,277 01	
Furnishings	4,787 93	
Labour	22,759 48	
Contingencies	1,277 48	
J. A. Armstrong, accountable	1,600 00	67,981 00
To complete buildings at O. A. C.—		
Material	1,992 91	
Labour	637 10	
Furnishings	934 70	
Contingencies	2 24	
		$ 3,566 41
		$ 75,889 88
Less refund		744 88
Total		$ 74,340 39

(b) Salaries and Expenses of Additions to Staff.

Grant, 1915-16	$ 12,400 00	
Expended to March 31, 1916	.....	$ 10,021 32
Balance on hand March 31, 1916	.....	2,378 68
Total	$ 12,400 00	$ 12,400 00

Services and expenses—	
R. Bryant, Assistant in Soil and Drainage Work	$ 651 70
G. J. Culham, Lecturer in Horticulture	1,228 15
H. S. Fry, Lecturer in Pomology	1,067 70
A. L. Gibson, Lecturer in Chemistry	574 15
J. P. Hales, Lecturer in Poultry	1,000 00
C. M. Laidlaw, Assistant in Drainage Work	1,060 94
A. Leitch, Lecturer in Farm Management	1,500 00
F. N. Marcellus, Lecturer in Poultry	1,336 60
J. P. Sackville, Lecturer in Animal Husbandry	1,000 00
J. Woodward, Lecturer on Geology and Soils	375 00
A. J. Galbraith, Assistant in Bee-keeping	26 92
Equipment	200 16
Total	$ 10,021 32

3. Short Courses Ontario Agricultural College.

Grant, 1915-16	$ 1,500 00	
Balance April 1, 1915	763 51	
Expended to March 31, 1916	.....	$ 2,148 28
Balance on hand March 31, 1916	.....	115 23
Total	$ 2,263 51	$ 2,263 51

Travelling and living expenses of winners of competitions	$ 2,124 10
Printing and stationery	24 18
Total	$ 2,148 28

4. To Encourage Agriculture and Domestic Science in High, Public, Separate and Continuation Schools.

Grant, 1915-16	$ 20,000 00	
Balance April 1, 1915	11,954 67	
Expended to March 31, 1916	.....	$ 20,346 66
Balance on hand March 31, 1916	.....	11,608 01
Total	$ 31,954 67	$ 31,954 67

W. R. Austin, Field Agent, services and expenses	$ 334 44
J. C. Fuller, " " "	302 18
A. M. McDermott, " " "	610 49
J. E. McLarty, " " "	201 25
E. L. Small, " " "	419 66
W. R. Scott, " " "	733 00
J. B. Dandeno, services as inspector of Elementary Agricultural Instruction	1,249 98
A. E. Robertson, services as instructor in household science	250 00
Grant to High, Continuation, Public and Separate schools for teaching agriculture	14,382 47
Instructors and students, services and expenses	1,524 20
Printing and advertising, periodicals	459 10
Seed, etc	130 64
	$ 20,597 41
Less refund	250 75
Total	$ 20,346 66

SESSIONAL PAPER No. 15c

The office of Field Agent was abolished in September, 1915, and the regular inspectors now have supervision of the agricultural instruction in their inspectorates.

Miss A. E. Robertson was appointed in September, 1915, at a salary of $1,500 a year to the new position of Teacher of Sewing in the Department of Household Science of the University of Toronto, for candidates for specialist and ordinary certificates granted by the Department of Education. Her salary for the months of January and February, 1916, is charged to the grant.

Printing and Advertising.—Included under this head are 5,000 pamphlets, "School Division, Experimental Union," and printing instruction leaflets, Nos. 7, 8, 9, 10, 11.

Seeds, etc.—This charge includes seeds supplied, and services performed in preparing seeds for School Division of Ontario Agricultural and Experimental Union, Guelph.

5. Marketing.

Grant, 1915-16	$ 6,000 00	
Balance April 1, 1915	1,279 25	
Expended to March 31, 1916	.....	$ 5,045 58
Balance on hand March 31, 1916	.....	2,233 67
Total	$ 7,279 25	$ 7,279 25

F. C. Hart, Director, services and expenses	$ 2,740 71
T. D. Jarvis, assistant, " "	157 65
J. B. Fairbairn, " "	1,188 47
Stenographer	600 00
Equipment and supplies	213 61
Stationery, postage, incidentals	226 14
	$ 5,228 58
Less refunds	183 00
Total	$ 5,045 58

6. Stock and Seed Judging; Institute Short Courses and Lectures.

Grant, 1915-16	$ 6,500 00	
Balance April 1, 1915	3,618 66	
Expended to March 31, 1916	.....	$ 5,588 07
Balance on hand March 31, 1916	.....	4,530 59
Total	$ 10,118 66	$ 10,118 66

Services and expenses of instructors—

J. A. Sinclair	$ 146 70
W. H. Smith	14 85
C. E. Bain	81 80
G. Barber	41 10
G. A. Brethour	33 30
J. Gardhouse	326 85
W. J. Gardhouse	26 00
A. C. Hallman	166 40
R. H. Harding	447 40
A. Leitch	29 95
N. D. MacKenzie	14 40
J. M. McCallum	70 95
J. C. Neale	24 40
H. C. Nixon	126 90
H. G. Reed	373 30
J. P. Sackville	88 75
C. Schuyler	75 60
R. Schuyler	35 15
W. H. Scott	58 90
G. L. Watt	148 10
W. M. Chisholm	29 00
E. M. Chapman	72 00
M. Yates	193 55
J. Campbell	168 12

6. Stock and Seed Judging, Etc.—*Concluded.*

Services and expenses of instructors—*Concluded.*		
F. Forsyth	$ 243 54	
A. W. Peart	13 50	
I. B. Martin	23 80	
M. V. Powell	42 50	
C. Gantby	34 10	
E. G. Rowley	22 55	
J. W. Clark	102 45	
H. M. Robinson	40 15	
F. N. Marcellus	5 25	
H. M. King	13 05	
		$ 3,521 84
Rent of stock		133 50
Freight and express		50 17
Rent of halls, tents, etc		216 41
Livery		76 20
Printing and advertising		942 33
Labour, cartage and supplies		826 66
Postage		235 13
		$ 6,002 24
Less refunds		414 17
Total		$ 5,588 07

7. Women's Institutes.

Grant, 1915-16	$ 2,000 00	
Balance April 1, 1915	7,806 87	
Expended to March 31, 1916	.....	$ 4,761 60
Balance on hand March 31 1916	.....	**5,045 27**
Total	$ 9,806 87	$ 9,806 87

Lecturers, services and expenses—	
N. H. Altenburg	$ 605 78
E. Chapman	167 50
E. M. Collins	435 24
G. Gray	479 22
H. I. Jobb	143 80
E. McKay	623 01
B. McDermand	255 43
O. Hayes	75 00
G. Conover	131 65
E. Campbell	75 00
M. L. Woelard	343 85
M. I. Foote	262 80
M. M. Smith	30 00
D. Miller	30 00
H. Willett	100 00
E. W. McClure	53 74
R. Black	404 15
E. McCausland	25 75
N. M. Steele	177 00
C. T. Black	354 75
Printing, advert'sing and contingencies	80 93
	$ 4,854 60
Less refund	93 00
Total	$ 4,761 60

8. Short Courses for Judges.

Grant, 1915-16	$ 3,000 00	
Balance April 1, 1915	709 15	
Expended to March 31, 1916	.....	$ 3,281 56
Balance on hand March 31, 1916	.....	427 59
Total	$ 3,709 15	$ 3,709 15

Sundry persons, services	$ 167 50
" " expenses	3,114 06
Total	$ 3,281 56

9. Drainage Work.

Grant, 1915-16	$ 6,200 00	
Expended to March 31, 1916	.....	6,113 73
Balance April 1, 1915	.....	$ 75 93
Balance on hand March 31, 1916	.....	10 34
Total	$ 6,200 00	$ 6,200 00

W. Dunn, Demonstrator, services and expenses		$ 486 35
D. Frejd, " " "		447 55
Fieldmen, sundry persons " "		1,233 31
Machine operators, " "		1,115 79
Tile layers, " "		4[illegible] 95
Draftsmen, " "		392 50
Stenographers		363 00
Printing, postage, stationery cartage		75[illegible] 81
Tile, supplies, repairs and incidentals		1,240 13
W. H. Day, O. A. College Staff, travelling expenses		55 44
		$ 6,793 03
Less refunds		479 30
Total		$ 6,113 73

10. Demonstration and Instruction in Vegetable Growing.

Grant, 1915-16	$ 3,000 00	
Balance April 1, 1915	838 28	
Expended to March 31, 1916	.....	$ 3,799 91
Balance on hand March 31, 1916	.....	38 37
Total	$ 3,838 28	$ 3,838 28

S. C. Johnston, Director, services and expenses	$ 2,11[illegible] 11
W. M. Anderson, Assistant " "	86[illegible] 97
Sundry persons lecturing, " "	96 92
Stationery and office supplies	47[illegible] 18
Furnishings and equipment	214 17
Livery and incidentals	30 41
Total	$ 3,799 91

11. Demonstration Work on Soils.

Grant, 1915-16	$ 2,000 00	
Balance April 1, 1915	1,645 67	
Expended to March 31, 1916	.....	$ 3,645 67
Total	$ 3,645 67	$ 3,645 67

R. Bryant, soil demonstrator, expenses	$ 136 [illegible]
G. M. Coffey, expenses	439 [illegible]
A. J. Galbraith, expenses	413 [illegible]
A. L. Gibson, expenses	241 [illegible]
R. Harcourt, expenses	482 [illegible]
W. L. Iverson, expenses	184 [illegible]
Sundry persons, expenses	501 [illegible]
Automobile and repairs	714 [illegible]
Supplies, equipment and repairs	488 [illegible]
Freight and cartage	73 [illegible]
Incidentals	12 [illegible]
Total	$ 3,645 [illegible]

12. Fruit Demonstration.

Grant, 1915-16	$ 4,000 00	
Balance April 1, 1915	3,349 52	
Expended to March 31, 1916	.....	$ 3,052 10
Balance on hand March 31, 1916	.....	4,297 42
Total	$ 7,349 52	$ 7,349 52

G. J. Culham, Instructor, expenses	$ 266 85
H. S. Fry, " "	200 00
W. F. Kydd, " "	626 54
W. L. Hamilton, " "	206 30
O. J. Robb, Fruit Specialist, expenses	1,108 75
L. Smith, Instructor, services and expenses	81 95
Supplies, labour, board	626 58
Cartage, express, freight	35 13
	$ 3,152 10
Less refund	100 00
Total	$ 3,052 10

Messrs. Culham and Fry are members of the Agricultural College staff; their services are paid under section 2b. Messrs. Kydd, Hamilton and Robb are employed by the Department of Agriculture and do no college work.

13. Demonstration in Bee-keeping.

Grant, 1915-16	$ 1,500 00	
Balance April 1, 1915	308 02	
Expended to March 31, 1916	.....	$ 1,755 71
Balance on hand March 31, 1916	.....	52 31
Total	$ 1,808 02	$ 1,808 02

Students and Instructors, services and expenses—

Jas. Armstrong	$ 69 70
J. Barlow	68 02
J. Coburn	5 50
A. Dennison	137 40
J. C. Duff	53 05
J. F. Dunn	36 65
R. A. Fowler	12 20
R. C. Fretz	63 20
W. F. Geddes	114 00
M. B. Holmes	19 00
R. M. Hunter	32 40
G. T. Kingsmill	494 50
J. H. McCauley	457 45
M. Pettit	59 20
N. Robertson	63 85
J. S. Schrank	38 50
W. Scott	117 44
W. H. Selwyn	22 95
S. A. Stewart	228 05
W. A. Weir	43 60
J. T. Wilson	14 05
Total	$ 1,755 71

14. Horticultural Experiment Station.

Grant, 1915-16	$ 2,500 00	
Expended to March 31, 1916	.....	$ 1,631 77
Balance on hand March 31, 1916	.....	868 23
Total	$ 2,500 00	$ 2,500 00

P. E. Culverhouse, Special Hypatics, services and expenses	$ 805 17
Supplies and equipment	772 83
Express, freight, incidentals	53 77
Total	$ 1,631 77

Miscellaneous (1914-15).

Balance April 1, 1915	$ 4,795 97	
Expended to March 31, 1916	.....	$ 1,132 97
Balance on hand March 31, 1916	.....	3,663 00
Total	$ 4,795 97	$ 4,795 97

G. J. Christie, Lecturing, services and expenses	$ 109 50
Geo. Harris, services caring for live stock	3 50
J. O. Laird, services and expenses, lecturing	4 00
W. Redpath, services and expenses *re* moving pictures	39 50
V. M. Shoesmith, services and expenses lecturing	54 00
Sundry persons, " " "	113 25
A. Maclaren, services and expenses as lecturer on Rural Sociology at O. A. College Conference for Rural Leaders	375 00
Moving picture films and supplies	359 45
Freight and express	39 00
Incidentals	33 77
Total	$ 1,132 97

The above expenditures were made on account of a balance carried forward from 1914-15, there being no Miscellaneous Section in the 1915-16 allotment.

A. Maclaren was engaged as lecturer at the first conference for rural leaders, held at the Ontario Agricultural College in August, 1916. He has since been placed on the regular staff.

The expenditure *re* moving pictures provided equipment and operating expenses for the equipment purchased in the year previous. The outfit was operated in connection with the "Better Farming Special" previously described.

Lectures on Horticulture (1914-15).

Balance April 1, 1915	$ 423 42	
Expended to March 31, 1916	.....	$ 289 28
Balance on hand March 31, 1916	.....	134 14
Total	$ 423 42	$ 423 42

Instructors, services	$ 117 50
" expenses	21 64
Total	$ 139 14

The above expenditure was on account of the 1914-15 grant, and is dealt with in the report on the Instruction Act for that year.

DEMONSTRATIONS IN LIVE STOCK AND POULTRY (1914-15).

Balance April 1, 1915	$3,097 80	
Expended to March 31, 1916	.....	$1,027 20
Balance on hand, March 31, 1916	.....	2,070 60
Total	$3,097 80	$3,097 80
F. N. Marcellus, instructor, expenses		$ 233 20
Lecturers, services and expenses—		
J. Porter	$ 15 00	
C. A. Zavitz	10 00	
G. E. Day	10 00	
A. Leitch	300 00	
J. Murray	40 00	
J. Gardhouse	10 00	
D. Anderson	15 00	
T. McMillan	20 00	
E. A. Hales	10 00	
J. P. Sackville	100 00	
J. J. Ferguson	40 00	
R. H. Harding	10 00	
A. J. Craig	15 00	
H. Goltz	15 00	
		610 00
H. M. King, instructor, services and expenses		109 00
Reporting conventions		75 00
Total		$1,027 20

The above expenditure was on account of the 1914-15 grant, and is dealt with in the report on the Instruction Act for that year.

ONTARIO.

AGRICULTURAL AID ACT GRANT, 1912.

STATEMENT APRIL 1, 1915, TO MARCH 31, 1916.

	Balance April 1, 1915.	Balance on hand, Mar. 31, 1916.
Poultry work	$ 4 39	$ 4 39
Milking shorthorns	1,856 11	1,856 11
Dairy survey	215 51	215 51
Ontario Veterinary College—Additional land	13,494 93	13,494 93
Western Ontario creamery work	1,131 90	1,131 90
Total	$16,702 84	$16,702 84
Live stock, Northern Ontario—Refund		3,427 84
Total		$20,130 68

QUEBEC.

AGREEMENT, 1915-16.

1. Poultry	$15,000 00
2. Arboriculture, fruit growing	33,000 00
3. Bacon	12,000 00
4. Schools of agriculture	60,000 00
5. Agricultural teaching in academies, rural and normal schools	8,000 00
6. District representatives, agricultural teachers, Agronomist	12,000 00
7. Experimental union	2,000 00
8. Alfalfa and clover	4,000 00
9. Seed selection	4,500 00
10. Bee-keeping	9,000 00
11. Tobacco	3,500 00
12. Dairying	25,000 00
13. Drainage	3,000 00
14. Domestic science	10,000 00
15. Maple sugar industry	4,000 00
16. Conferences, publications, etc	10,310 70
Total	$215,310 70

The grant to the province of Quebec, provided by the Agricultural Instruction Act, is expended mainly under three divisions. First, to promote undertakings carried out through the Provincial Department of Agriculture; second, to contribute to the funds of colleges and schools of agriculture, and, third, to advance agricultural teaching in rural schools and instruction in household science in the convent and normal schools.

In making a general survey under these three headings of the work carried on, it will be found that the projects coming under the direct auspices of the Provincial Department may, speaking generally, be regarded either as field demonstration, oral instruction, or, as is most often the case, a combination of instruction and demonstration. An example of the first will be found in the demonstration orchards, in the alfalfa and clover plots and in the operation of ditching machines in connection with under-drainage; of the second, in the short courses provided for farmers and farmers' sons, and of the third, in the school of instruction in bacon-curing and general abattoir work, as well as in the maple sugar-making schools.

In an effort to stimulate the raising of hogs and the production of bacon, a Danish expert has been employed and a building provided and equipped to give detailed instruction in bacon-curing and general abattoir methods. In connection with the effort being made to raise the standard and increase the supply of maple products, for which the province is noted, four schools have been provided at which instruction is given in up-to-date methods. In the interest of horticulture the province has received very considerable aid. Not only has a provincial entomologist been provided, but a fruit branch of the department at Quebec has been organized, mainly with the funds derived from the grant, while the cost of operating demonstration and experimental orchards and the establishment of a nursery for introducing suitable varieties of fruit is being met in this way.

The same is true of the poultry demonstrations scattered over the province, the tobacco-growing and curing demonstrations and the work of apiary inspection, coupled with instruction in the keeping of bees free from disease.

In various other forms of demonstration the grant has been of great assistance. It has been drawn upon to assist the pure-seed propaganda, including the operation of clover-hullers, leading to a numerous introduction of these machines and a great increase in the supply of home-grown seed.

Dairying is the leading branch of agriculture in Quebec, and the province has been relieved to a considerable extent of the cost of the work of inspection in cheese and butter factories. The advance in the quality and quantity of the output is noteworthy, due largely to the improvement that has taken place in methods of production and manufacture.

The introduction of the district representative system has been brought about by means of the grant. The number of district agronomists employed among the French population has been increased from six to twelve, with five assistants. The scope of their work includes the supervision of farmers' organizations, advising with farmers, the promotion of demonstrations and of school garden and school fair work, and the carrying on of short courses for farmers.

The grant also contributes to the issue of bulletins on many of the topics referred to, and also to the cost of making educational displays at exhibitions.

Turning to the schools and colleges of agriculture it will be found that, both at the Agricultural Institute at Oka and the School of Agriculture at Ste. Anne de la Pocatière, the student capacity has been extended and other financial assistance has also been given in the way of increased salaries for the teaching staffs and towards equipment and maintenance. Each school is to receive $50,000 to cover the cost of building extensions, to be paid from the grant in yearly instalments.

By means of the grant Macdonald College has been enabled not only to increase its teaching staff, and to extend its investigation and research work, but also to carry on various demonstrations among the English-speaking community, embracing among other activities, sheep husbandry, poultry-keeping and orchard management. Assistance has also been given to college extension work, including homemakers' clubs, short courses and the training of teachers in agriculture.

A considerable share of the grant has been employed to promote instruction in household science, and in providing normal school students with the training necessary to enable them to give agricultural instruction through garden and class-room work. The teaching of household science in 47 convent schools and 2 normal schools is supervised, and special grants are made to these institutions, to assist this department of instruction, which includes such outdoor phases as gardening, bee-keeping, and orchard, dairy and poultry work. A special course is offered at the normal schools to convent teachers in household science.

The Assistant Commissioner of Agricultural Instruction for the Province of Quebec, Dr. J. C. Chapais, makes the following report on the work carried on during the year through the Quebec Department of Agriculture:

Poultry Industry, $19,425.

Instruction in poultry raising was given by means of lectures or practical demonstrations at twenty-eight breeding and fattening stations, in forty-nine normal and domestic science schools, and also in connection with co-operative incubator stations. In the majority of cases, the department rents the land, buildings and implements used, on a basis of about 10 per cent of the total value, said rent not to exceed $100. A manager takes charge of two or three stations, and is assisted by the proprietor, who receives a small bonus for his work together with whatever profits accrue from operations. At all stations practical instruction is given in candling eggs, and in caponizing, killing, dressing and packing poultry for market. District representatives conducted poultry exhibits at school fairs in eleven counties.

Fruit Culture, $23,240.60.

This work is conducted under four divisions, (1) Demonstration Orchards, (2) Experimental Fruit Stations, (3) Experimental Fields and (4) Horticultural Societies.

1. Demonstration Orchards: Five orchards in the western district, chiefly Fameuse apples, were taken over by a committee of the Quebec Pomological Society, with Prof. W. Saxby Blair, of Macdonald College, at its head, in order to demonstrate proper methods of spraying and cultivation. Twenty-six acres of orchard are included in this undertaking. The work has been very beneficial in its results. At Abbotsford where farmers were ready to abandon their orchards, a strong co-operative fruit organization has been formed, and planting is being extended. At Abbotsford and Havelock a number of power spraying outfits have been purchased. Results in other districts are also encouraging, although for various reasons, not so marked as in the two already mentioned.

(2) Experimental Stations and Fields: The number of stations was reduced to twenty-eight this year, being eight less than the year previous, whereas the experimental fields were increased from eighteen to thirty, as better results are anticipated from them than from the Stations discontinued. Both stations and fields are provided with trees for planting and with whatever is necessary in the way of supplies.

(3) Horticultural Societies: These form a medium for the distribution of fruit trees as premiums with the object of encouraging the planting of domestic orchards. During the year 6,000 trees were distributed and planted, having been sold to the societies at cost price by the department. These the Berthier nursery, now being established, will shortly be able to supply. Ten instructors were sent out to give instruction in planting, pruning and spraying to members securing trees by this means.

Fruit displays were prepared by the department for the various agricultural exhibitions throughout the province, and numerous lectures and demonstrations were held during the year.

Bacon Industry, $19,040.

The major portion of the year's expenditure has been for the extension and fuller equipment of the abattoir at St. Valier, the total charge against the Instruction Act since 1913 having been $18,262 for this purpose. The capacity of the plant has now been increased from 15 to 60 hogs a day.

The work is in charge of A. Hansen, a Danish bacon expert. Practical courses are given to students and, in addition, many farmers have been given instruction in the raising, feeding, killing and dressing of hogs, beef-cattle, calves, sheep and poultry, and valuable work in the promotion of the live stock industry is carried on. A new departure has been the organization of a hog-fattening competition among farmers' sons.

In the spring of 1916, the Provincial Department transferred the direction of the establishment to the Quebec Cheesemakers' Co-operative Society, an institution which is rapidly taking the lead in the commercial handling of the dairy, meat and poultry products of the province.

Agricultural Instruction in Academies and Schools, $16,884

Of this sum, $5,219 was expended in connection with special courses for public school teachers at Ste. Anne de la Pocatière, the Oka Institute and Macdonald College, and $3,623 for special lecturers appointed by the department to lecture on agriculture, horticulture and domestic science in the academies and colleges of the province. One lecturer, M. l'abbé A. Michaud, President of the Quebec Agricultural Missionaries, delivered seventy lectures of this character during the year.

The balance of the appropriation was devoted chiefly to the school garden and school fair promotion, together with the cost of printing instructional pamphlets. During the year, 759 school gardens were carried on, with over 19,000 children engaged either at home or at school. The children's clubs established numbered 305, and 228 teachers signified their intention of making school exhibits in 1916. In this work the district representatives rendered great assistance.

District Representatives, $14,774.

No important changes were made in this work during the period covered, although plans are being devised to increase the number of representatives from six to twelve, and the assistant representatives from two to five. The importance of giving instruction to settlers in new districts has been recognized by the appointment of a representative in the Abitibi country, recently opened for colonization. There the work performed included lectures on clearing, breaking and ploughing and the operating of demonstration plots.

Quebec Experimental Union, $2,500.

This organization receives an annual grant of $2,500 from the allotment to the province. The work carried on included experiments with alfalfa (250 pounds of seed distributed), experiments in methods of couch-grass eradication, and experiments with bees and poultry. In the latter, the colony-house system was made the feature.

With a view to qualifying the students of the Quebec Normal School to teach agriculture a tract of land located near the school is operated as a basis for demonstration lectures. The publicity work carried on included representation at exhibitions, lectures, correspondence and pamphlet distribution.

Alfalfa and Clover Demonstration, $3,995.

Thirty-four clover demonstration plots were conducted, and two clover-hulling machines were demonstrated at ten points, hulling 18,500 pounds of seed and cleaning 7,340 pounds. It was estimated that sixty privately-owned hullers would operate in the province during the season, and that, as a result, 400,000 pounds of seed would be secured. For the information of growers, a booklet on clover was compiled and 10,000 copies issued.

Seed Selection, $5,956.

The expenditure covers services and expenses of travelling instructors and lecturers to promote seed selection work among the farmers, and to oversee the work conducted by members of the Seed Growers' Association.

A two-day exhibition of seeds and grains is held at Quebec in January of each year under the auspices of the Provincial Department. Seven hundred competitive exhibits were made, and a competition in seed-grain judging among farmers' sons was conducted.

Apiculture, $8,996.

This division of the grant provides the salaries and expenses of apiary inspectors and their assistants, together with the supplies and equipment used in the performance of their work. These men inspect for foul brood and instruct bee-keepers in the treatment of this disease.

Dairying, $29,541.

Apart from a grant of $2,000 made in 1915 to the Dairy School at St. Hyacinthe, the whole of this appropriation is devoted by the Provincial Department to the inspection services for cheese and butter factories.

Under the Dairy Act of 1915, the province was divided into fifty districts, with an average of about 42 factories to each district. The inspection service includes two general inspectors, five assistant general inspectors and fifty local inspectors, by whom weekly reports are submitted. Inspectors are required to hold diplomas as cheese and buttermakers, and to test milk and cream to the satisfaction of the Board of Examiners of the Dairymen's Association. Each year or so they spend a few days at the St. Hyacinthe Dairy School to keep in touch with modern methods. It is anticipated that this work will speedily lead to further improvement of methods of milk production and manufacture, thus promoting the progress of the industry.

Drainage, $7,675.

The two ditching machines purchased in 1912 were continued in operation. During the year, 21,075 feet of ditch were excavated on the farms of the St. Paschal Normal School of Domestic Science and of the Ste. Anne de la Pocatière Agricultural School. The second machine excavated 29,900 feet in Huntingdon county. Other work performed was that of surveying land, preparing plans and addressing gatherings of farmers interested in drainage.

Domestic Science, $13,490.

The number of schools in the province giving domestic science courses increased from forty-five to forty-nine during the year, all being convent schools except two. Instruction includes outdoor work in gardening, poultry-raising, bee-keeping and orchard and dairy work. The Rev. Pabbé O. Martin devotes the whole of his time to the superintendence of this work, paying frequent visits to the institutions, delivering lectures, etc. The grants made the institutions to assist this branch of instruction amounted to $11,490, the balance going to pay the salary of the Provincial Inspector, expenses of a school exhibit at the Quebec Exhibition, and in printing pamphlets for distribution.

Maple Industry, $2,739.

The maple industry of the province continues to make satisfactory development and the quality of the product to show an improvement, but it is believed that the output can still be greatly increased if proper methods are followed. The work of instruction in methods of manufacture, carried on during the last few years, has been financed by the funds provided by the Agricultural Instruction Act as described in the previous report, but legislation, looking to the protection of the industry has no doubt had an important bearing on results, as have also the steps taken by various co-operative organizations for the marketing of the product.

During the year, a fourth sugar-making school was added to the three already in operation, the new one being located at St. Casimir, Portneuf county. The attendance showed an increase for the year at two out of the three older schools, and was as follows:—

	Students	Visitors
Beauceville	13	345
Ste. Louise	14	321
La Minerve	4	23
St. Casimir	19	454

Services and expenses of superintendents and cost of students' board are charged to the vote.

The work of giving practical demonstrations at school houses, having proved successful, was continued, and 796 farmers were reached in this way. Twenty thousand copies of a bulletin on sugar-making were distributed.

Lectures and Publications, $11,234.

This division of the grant goes to assist the Provincial Department to carry out the annual short course programme, and to print and publish bulletins and pamphlets for the information of the farming community.

The courses are additional to those carried on by the Schools and Colleges of Agriculture, and, this year, were divided into two series, one conducted at points on the Grand Trunk and Quebec Central railways, and the second along the lines of the Intercolonial railway. The courses are of one week's duration with three sessions per day, the work being performed largely by the district representatives, officers of the Dominion and Provincial Departments, the professors of the Schools of Agriculture, sugar-making school instructors and others.

The first series of courses extended from November, 1915, to March, 1916. Courses were held at thirteen points in as many counties, the total attendance being very large.

This year domestic science courses were added to the general courses in agriculture and Mlle. Jeanne Anctil, Director of Domestic Science School of Montreal, being in charge of the work. At three points, St. Agapit, Plessisville and Beauceville, women's clubs were organized.

The second series extended over a period of fifteen weeks. The courses were of five days' duration and were held at fifteen points, in as many counties, stretching from Lévis to Gaspé. The lectures were given mainly by the staff of the School of Agriculture of Ste. Anne de la Pocatière, assisted by representatives of the Provincial and Dominion Departments. As an outcome cow-testing associations were established quite generally, and the maintenance of various agricultural organizations was greatly encouraged.

Schools of Agriculture.

The work begun in 1912 of increasing the capacity of the Agricultural Institute at Oka, and of the School of Agriculture at Ste. Anne de la Pocatière has now been completed. These schools now accommodate 125 and 130 students respectively, and during the year, each had its full complement. The usual winter and summer short courses were held for farmers, farmers' sons and school inspectors, and all are reported to have been well attended.

OKA AGRICULTURAL INSTITUTE, 1915-16.

Expenditure of Grant.

Enlargement of college building, annual payment	$ 5,000 00
Insurance, heating and lighting	1,600 00
Allowance for board of students	1,936 00
Administration, salaries and wages	3,700 00
Apparatus and supplies	631 00
Salaries and allowances of teaching staff	7,060 00
Expenses of various branches	500 00
Experimental plots	483 00
Total	$ 20,910 00

SESSIONAL PAPER No. 15c

SCHOOL OF AGRICULTURE, STE. ANNE DE LA POCATIÈRE, 1915-16.

Expenditure of Grant.

Building extension, annual payment	$ 6,000 00
Insurance, heating and lighting	1,715 00
Appliances	181 05
Library books and magazines	154 90
Experimental plots and drainage	850 00
Machinery and appliances for preserving fruit	300 00
Travelling expenses	96 09
Allowance for board of students	1,579 45
" wages of employees	1,035 00
Salaries and allowances of teaching staff, etc	8,005 00
Total	$ 19,916 49

MACDONALD COLLEGE.

REPORT ON WORK PERFORMED IN 1915-16.

Animal Husbandry: The work in this department was devoted entirely to sheep husbandry. Much effort was directed towards enlarging, organizing and assisting the nine wool growers' and sheep breeders' associations now operating in the province. These associations increased their membership from 975 to 1,617 this year. One hundred and sixty-nine thousand eight hundred and thirty-nine pounds of wool were marketed co-operatively through these associations at an average price of 41·8 cents per pound, which was 7 cents to 12 cents a pound more than that paid locally throughout the province. In addition to marketing their wool these associations have successfully conducted four local sheep sales at which 98 head of breeding stock were sold, and they are now organized to undertake the co-operative marketing of their lambs.

Eight demonstration flocks of pure-bred sheep have been established in various parts of the province for the purpose of demonstrating improved methods of breeding, housing, feeding and management. The increase will be used in establishing new flocks. A few pure-bred rams have been placed with grade flocks in order that farmers might ascertain the value of using pure-bred sires on grade ewes. Through these channels the blood lines of sheep on certain districts may be definitely influenced, and at the same time sheep raising may be given an impetus.

Experiments with fifty lambs were conducted comparing the value of various roughages, silage and swedes in different combinations with a standard grain ration for fattening lambs.

Educational features of the work consisted, for the most part, in delivering lectures and giving demonstrations. Talks were given on the preparation of wool for market, management and feeding of breeding ewes, fattening lambs for market etc. Demonstrations were given in the proper methods of shearing, rolling and tying of fleeces, docking and castrating lambs. A sheep exhibit was sent to Sherbrooke Fair. Other features of the exhibit were models and particulars of a sheep barn, feeding rack, lamb trough and dipping tank.

Cereal Husbandry: The work conducted in the cereal husbandry department is that of root crop investigation. During the past season the cultural experiments of former years have been continued. Of these the experiments on dates of seeding and on dates of singling have given very conclusive results. There is now no doubt that an increased yield results from early seeding and singling. These facts have not, up to the present, been appreciated by the majority of root growers.

In addition to cultural experiments considerable work has been done on seed production and on selection with the object of isolating superior strains. The result has been that home-grown seed has shown itself vastly superior to anything placed in the market up to the present. By careful selection strains of mangels and of swedes have been isolated which, in triplicate tests, have proved superior not only to ordinary commercial varieties but also superior, under Quebec conditions, to outstanding strains obtained directly from European breeders.

Aside from the experimental work conducted at the college, all possible assistance has been given to the farmers of the province of Quebec in order to encourage the production of home-grown seed. With this object in view seed roots and good foundation seed have been distributed in several counties. The results have been excellent. These local tests give good promise of a future satisfactory development of this important line of work.

Horticulture: Seed distribution to school children in rural districts has been continued as in the past two years. One thousand 10-pound lots of potatoes, 100 packets of early sweet corn, 500 packets tomatoes and 800 collections of flower seed were distributed in the rural schools.

The irrigation system has been found very useful, especially during June, July, and August of 1915, and records have been kept of amounts of water used on various crops and comparisons made with unirrigated plots of similar vegetables and strawberries. Information is being sought in regard to the financial returns of these crops through a series of years.

An experiment was undertaken in order to determine the degree of self-fertility or self-sterility in the McIntosh and Fameuse apples, and some information has been gathered in regard to it. The experiment will be continued for at least two more years. A number of vacancies in the three demonstration orchards were filled in, and in general these orchards are making good growth.

Biology: The work done in the Biology Department is divided under two heads—(1) Investigation, (2) Teaching.

During the summer the work consists almost exclusively of investigation of injurious insects. The most important work undertaken during the past year was a continuation and completion of studies on the life history and control of the bud moth *Eucosma (Tmetocera ocellana Schiff)*. This insect, which is injurious in practically all the fruit growing districts of Canada from British Columbia to Nova Scotia, has during recent years been one of the most serious fruit pests in Quebec. In the spring it causes injury to the leaf buds, flower buds and setting fruit; in summer it skeletonises the leaves and injures the larger fruit, making culls of otherwise excellent fruit. Experiments conducted in the spring of 1915 showed that the best two sprays for controlling this insect were those applied shortly before the blossoms open and shortly after the petals fall. These experiments were repeated in the spring of 1916 and gave the same results. In the summer of 1915 spraying experiments to control the newly hatched larvæ were conducted. It was found that a thorough spraying with lime and sulphur and lead arsenate when the eggs are on the leaves will destroy a large proportion of the larvæ as soon as they hatch and commence feeding. A full account of the life history and control of this insect is now in course of preparation and will be published shortly.

During 1915, observation and notes were made on certain clover insects. A curculionid weevil *Tychius picirostris* was discovered which threatens to be a new pest of clover. This insect is being carefully studied.

A start has also been made on the study of the caterpillars and other larvæ which attack apples in Quebec. The intention is to gradually acquire information on these insects, their occurrence, the extent of their injury, their habits and control, and to construct a key which, supplemented by drawings and photographs, will enable the grower to determine any of these insects.

During the college session a considerable amount of the time of the investigator was devoted to teaching.

Poultry: Six breeding flocks have been established in the six demonstration houses. A number of breeding flocks have also been established with reliable farmers in various parts of the province to assist in the work of supplying hatching eggs for school fair distribution. 541 sittings of hatching eggs have been distributed to school children from seven centres. School fairs will be held at which the children will exhibit the chicks hatched from the eggs supplied to them. A marked improvement is noticeable in the number of pure-bred poultry throughout the province. Educational exhibits have been put on at a number of poultry shows. To ascertain existing conditions on the farms in the province a poultry survey has been started, and up to the present time about 300 farms have been visited.

Chemistry: The department of chemistry has continued throughout the year investigations of maple syrup, maple sugar and other products of the maple tree. Five papers were published in connection with the work done on methods of detecting the adulteration of maple products. A method for detecting the adulteration of both maple sugar and maple syrup has been worked out during the past year, which promises to be the best single test yet devised.

Rural School Department: During the past year over 800 pupils in sixteen superior schools received a two-day short course in nature study and agriculture, while several hundred more in the smaller schools were given lectures along the same lines. Public meetings were also held, which were well attended. Eleven conferences were addressed at which 175 elementary teachers were present. Some of the fund was also expended on the improvement of school grounds, ten being improved during the year with shrubs and flowers. The school boards, however, refund a fair proportion of this outlay.

Veterinary Science: Classes have been given in veterinary work at Macdonald College. Demonstrations and lectures have been given at various places throughout the province. The various treatments of contagious abortion have been experimented with to determine the most adaptable method for controlling the disease. The intra-dermal test for tuberculosis was also given a fair trial to determine its reliability in diagnosing the disease.

Household Science: During the year 1915-16 there has been in the work of the Quebec Homemakers' Clubs, as a whole, a sound and well sustained development. Not only have the clubs carried out their regular study programmes and in many instances done much valuable work in their own communities but, in addition, have in almost every case materially assisted the national movement in Red Cross and other patriotic service. Four new clubs were organized during the year.

The clubs gave considerable attention during the year to stimulating the interest of the school children in matters pertaining to the home and the community by offering prizes for cooking, sewing and garden products at school fairs. The demonstrator gave practical demonstrations to the children to aid them in preparing their exhibits. This movement will, it is believed, have far-reaching results for good throughout the province, leading to improvement in home and community life.

Demonstration: The expenditure was devoted to demonstrator and office for Pontiac county at Shawville, Que.

Short Course: Winter short courses were held in live stock, field crops, poultry, horticulture, farm engineering and farm home at nineteen centres in the province. Fifty-two meetings were held in 19 places in 11 counties; the total attendance was 2,371; with an average per meeting of 46. Eighty-six addresses were given by 15 different members of the college staff.

Macdonald College.

RECEIPTS.

Credit balance, April 1, 1915	$ 1,317 25
Dominion grant, 1915-16	20,000 00
Total	$ 21,317 25

DISBURSEMENTS.

(Including salaries of members of staff paid wholly or in part from Grant.)

Animal husbandry	$ 4,879 56
Biology	1,049 94
Cereal husbandry	2,516 19
Chemistry	1,043 37
Demonstration	2,207 59
Horticulture	661 56
Household science	1,427 70
Physics	525 01
Poultry	2,481 38
Veterinary science	1,220 96
Rural schools	1,920 08
General	712 55
Short courses	392 07
	$ 21,037 96
Credit balance March 31, 1916	279 29
Total	$ 21,317 25

APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

(A) *List of persons regularly employed whose salaries are paid wholly from the Agricultural Instruction Grant.*

Instructor, Rev. J. B. A. Allaire, St. Thomas d'Aquin, St. Hyacinthe, Quebec.
" L. P. Belisle, Department of Agriculture, Quebec.
" Raoul Dumaine, St. Guillaume d'Upton, Quebec.
" J. G. Morgan, Department of Agriculture, Quebec.
" J. M. T. Talbot, Department of Agriculture, Quebec.
" Antonio Mathieu, Department of Agriculture, Quebec.
" Lucien Dupuis, Department of Agriculture, Quebec.
Entomologist, G. Maheux, Department of Agriculture, Quebec.
Instructor, J. E. Grisé.
Expert, Bacon Industry, A. Hansen, Department of Agriculture, Quebec.
Seed Expert, Louis Lavallée, St. Guillaume d'Upton.
Poultry Superintendent, Rev. Brother Liguori, Department of Agriculture, Que
Poultry Assistant Superintendent, Léon Picard, Department of Agriculture, Que.
District Agronomist, Alphonse Roy, Plessisville, Quebec.
" H. Clouthier, Rougemont, Rouville, Quebec.
" J. M. Leclair, Amos, Abitibi, Quebec.
" R. A. Rousseau, Acton-Vale, Bagot county.
" Alphonse Désilets, St. Jean, I. O., Montmorency county.
" J. C. Magnan, St. Casimir, Portneuf.
" Abel Raymond, St. Valier, Bellechasse county.
" W. G. MacDougall, Lennoxville, Sherbrooke county.
" R. Husk, Huntingdon.
" J. A. Fortin, St. Stanislas, Champlain county.
" J. N. Albert, Bonaventure.
" L. V. Parent, Richmond.
Assistant District Agronomist, Arthur Landry, Actonvale, Bagot county.
" " Wilfred Delaney, St. Jean, I. O., Montmorency
" " J. R. St. Arnaud, St. Casimir, Portneuf.
" " L. A. Gosselin, St. Valier, Bellechasse.
Lecturer, Miss Eva Paré, Causapscal, Rimouski county.
" " Eveline LeBlanc, Bonaventure.
" Rev. Ol. Martin, St. Denis, Kamouraska county.
Clerk, J. D. Barbeau, 142 Sauvageau street, Quebec.
" O. Roberge, Rosalie, Bagot.

(B) *List of persons regularly employed, whose salaries are paid in part from the Agricultural Instruction grant.*

Accountant, J. Arthur Paquet, Department of Agriculture, Quebec.

COLLEGE OF AGRICULTURE

(*Ste. Anne de la Pocatière, Kamouraska.*)

The salaries of the following are paid wholly from the Federal subsidy:—
Professor of Horticulture, Rev. P. Levasseur
" " " " A. Letourneau

Professor of Mathematics, E. Beaudoin.
" " Chemistry, L'Abbé Geo. Coté.
" " English, T. Ennis.
" " Mathematics, S. Lord.
" " Droit Rural, Notaire Dupuis.
" " Génie Rural, Albert Sirois.
Asst. Chef de Pratique Générale, M. Philéas Boulet.
Horticulturist, Albert Jalbert.
Instructor in Dairying, Ernest Lizotte.
" " " Francois Dionne.
" " " Alfred Robichaud.
Domestic help (4 persons).
The salaries of the following are paid in part from the Federal subsidy:—
Professor of Chemistry, Georges Bouchard.
Instructor, Jos. Sénéchal.

THE OKA AGRICULTURAL INSTITUTE.

(*La Trappe, Quebec*).

The salaries of the following are paid wholly from the Federal grant:—
Director, Rev. Father Jean-de-la-Croix.
Chief of general practice, Brother Celestin.
" " " Gérard.
Aumonier, Rev. Father Yves.
Institute Secretary, D. Fortin.
Professor of Physics, J. W. Ponton.
" " Agriculture, Philippe Roy.
" " Entomology, Firmin Létourneau.
" " Veterinary Medicine, Dr. A. Dauth, Montreal.
" " Apiculture, Rev. P. Maur.
" " Horticulture, Rev. P. Athanase.
" " Poultry Husbandry, Rev. Brother Wilfred.
Instructor Agricultural Engineering, H. Nagant.
" Horticulture, L. Arscott.
Vergers & Pépinière, P. Honore.
Chaplains, R.R.F.F. Humbert and Alfred.
The salaries of the following are paid in part from the Federal subsidy:—
Professor of English, Rev. Brother Benjamin.
" " Arboriculture, Rev. Father Leopold.
" " Biology, Rev. Father Isadore.

MACDONALD COLLEGE.

(*Quebec*).

Officers regularly employed, whose salaries are paid wholly from the Agricultural Instruction grant:—

Crop Investigator, P. A. Boving.
Veterinarian, N. E. McEwan, V.S.
Sheep Husbandry, A. A. McMillan, B.S.A.
Assistant in Biology, E. M. Duporte, B.S.A.
" " Physics, R. MacDougall, B.S.A.
" " Animal Husbandry, A. E. McLaurin, B.S.A.
" " Assistant in Chemistry, J. G. Van Zoeren.
Demonstrator Homemakers' Clubs, Miss F. Campbell.
Rural School Demonstrator, J. E. McQuat, B.S.A.
District Demonstrator, C. H. Hodge, B.S.A., Shawville, Quebec.

QUEBEC.

Grant of 1914-15.

Summary Statement from April 1, 1915, to December 31, 1915.

No.	Classification.	Balance on Hand April 1, 1915.	Expended to Dec. 31, 1915.
		$ cts.	$ cts.
1	Poultry	9,881 34	9,881 34
2	Fruit Growing	1,000 00	1,000 00
3	Bacon Industry	3,116 54	3,116 54
4	Schools of Agriculture	18,690 47	18,690 47
5	Agriculture in Academies, Rural and Normal Schools	3,207 29	3,207 29
6	District Representatives	8,593 11	8,593 11
7	Experimental Union	1,500 00	1,500 00
8	Alfalfa and Clover	0 03	0 03
9	Seed Selection	1,998 99	1,998 99
10	Bee-keeping		
11	Tobacco	596 78	596 78
12	Dairying	4,541 29	4,541 29
13	Drainage	6,956 38	6,956 38
14	Domestic Science	3,949 67	3,949 67
15	Maple Sugar	663 56	663 56
16	Conferences, etc.	923 66	923 66
	Total	65,589 11	65,589 11

Details of Expenditure, April 1, 1915, to December 31, 1915.

1.—Poultry.

April 1, 1915, balance unexpended	$ 9,881 34	
Expended to December 31, 1915		$ 9,881 34
Rev. Bro. Liguori, Provincial Superintendent, salary and expenses		[illegible]
Leon Picard, Assistant		[illegible]
J. D. Barbeau, Assistant		[illegible]
Rev. J. B. A. Allaire, Lecturer		[illegible]
Instructors, services and expenses—		
Raoul Dumaine	[illegible]	
Jean Charbonneau	[illegible]	
Tel. Roy	[illegible]	
J. Art. Fortin	[illegible]	
J. G. Morgan	[illegible]	
Art. Chabot	[illegible]	
Art. Larabee	[illegible]	
C. Vaillancourt	[illegible]	
J. M. Talbot	[illegible]	
P. Racine	[illegible]	
J. W. Mercier	[illegible]	
		[illegible]
Poultry Stations—		
Services of superintendents, rental, etc.		[illegible]
Eggs for distribution, incubators, utensils, and supplies		[illegible]
Printing, etc.		[illegible]
St. Hyacinthe Co-operative Society grant		[illegible]
Total		$ 9,881 34

2.—Fruit Growing.

April 1, 1915, balance unexpended	$ 1,000 00	
Expended to December 31, 1915	.....	$ 1,000 00
Fruits Division, salary and expenses—		
Rev. V. A. Huard, Provincial Entomologist		$ 75 00
D. J. Wood, Conserves expert		150 00
J. H. Lavoie, Assistant Arboriculturist		100 00
Instructors, services and expenses—		
F. X. Gosselin	$ 42 90	
P. Lapointe	55 60	
Henri Roy, Forestry Engineer	350 00	
Alf. LaBel	126 35	
G. Reynaud	51 85	
		$ 626 70
Incidentals		48 30
Total		$ 1,000 00

3.—Bacon Industry.

April 1, 1915, balance unexpended	$3,116 54	
Expended to December 31, 1915	.....	$3,116 54
A. Hansen, bacon expert, salary		$ 750 00
A. C. St. Pierre, manager St. Valier Abattoir		75 00
Art. Perrault, co-operative society organization		116 54
Wilfrid Brochu, building annex to St. Valier Abattoir		1,000 00
Refrigeration at St. Valier		704 00
Supplies and incidentals		471 00
Total		$3,116 54

4.—Schools of Agriculture.

April 1, 1915, balance unexpended	$18,690 47	
Expended to December 31, 1915	.....	$18,690 47
Oka Institute, balance of grant		$ 2,910 00
Macdonald College, balance of grant		10,000 00
Ste. Anne de la Pocatière, balance of grant		4,000 00
" " " students' board allowance		1,380 47
Orphelinat Agricole de Vauvert		400 00
Total		$18,690 47

5.—Agricultural Teaching in Academies, Rural and Normal Schools.

April 1, 1915, balance unexpended	$3,207 29	
Expended to December 31, 1915	.....	$3,207 29
Rev. A. Michaud, lecturer, salary, $133.32; expenses, $82.05		$ 215 37
J. C. Magnan, organization of school gardens		200 00
Macdonald College, *re* agriculture in Protestant Normal Schools, 1913-14		412 80
17,500 copies "Le Potager Canadien"		2,000 00
10,000 " "Conferences sur l'Agriculture"		300 00
Incidentals		79 12
Total		$3,207 29

6.—District Representatives.

April 1, 1915, balance unexpended	$8,593 11	
Expended to December 31, 1915		$8,593 11
Salaries and disbursements—		
R. A. Rousseau		$1,222 53
J. C. Magnan		962 36
H. Cloutier		1,140 62
A. Raymond		1,127 92
J. M. LeClair		895 91
A. Desilets		795 61
L. P. Gauvin, assistant		64 39
J. S. Simard, "		158 70
R. Barbin, "		268 46
Alf. Paquet, "		583 65
J. A. Fortin, "		606 21
		$7,826 76
Cameras and photo supplies		82 40
Clover seed for distribution		173 97
Motor cycle		298 00
Office furniture		98 00
Postage and incidentals		114 88
Total		$8,593 11

7.—Experimental Union.

April 1, 1915, balance unexpended	$1,500 00	
Expended to December 31, 1915		$1,500 00
Balance of grant		$1,500 00

8.—Alfalfa and Clover.

April 1, 1915, balance unexpended	$3 02	
Expended to December 31, 1915		$3 02
Postage		$3 02

9.—Seed Selection.

April 1, 1915, balance unexpended	$ 1,998 89	
Expended to December 31, 1915		$ 1,998 89
Salaries and Expenses—		
L. Francoeur		$ 326 97
F. X. St. Pierre		179 54
Jos. Barbeau		27 55
L. P. Belzile		293 40
L. Lavallee		210 57
O. Roberge		96 77
L. E. Kronstrom		470 17
L. Brown, leaflet on clover and travelling expenses		368 76
Incidentals		26 86
Total		$ 1,998 89

11.—Tobacco.

April 1, 1915, balance unexpended	$ 566 78	
Expended to December 31, 1915	.....	$ 566 78
L. E. Kronstrom, salary and expenses		$ 315 11
Expenses *re* demonstration fields		560 86
Incidentals		40 81
		$ 916 78
Re land purchase at St. Cesaire, amount not utilized		350 00
Total		$ 566 78

12.—Dairying.

April 1, 1915, balance unexpended	$ 4,541 29	
Expended to December 31, 1915	.....	$ 4,541 29
Services and expenses—		
Ph. Rheault		$ 146 50
P. Gaudreaut		428 25
G. St. Pierre		89 55
A. N. La Brie		21 95
Art. Morisette		130 50
Jos. Pasquet		10 90
J. Art. Paquet		300 00
J. A. Talbot		192 55
J. D. Leclair, indemnity		300 00
Geo. Cayer		200 00
L. P. Lacoursiere		150 00
T. H. Fortier		63 00
Grant St. Hyacinthe Dairy Society		2,000 00
Typewriter. St. Hyacinthe Dairy Society		168 25
Translation, postage, incidentals		339 84
Total		$ 4,541 29

13.—Drainage.

April 1, 1915, balance unexpended	$ 6,956 38	
Expended to December 31, 1915	.....	$ 6,956 38
Services and Expenses—		
John Drolet		$ 764 20
W. Giroux		1,034 63
F. N. Savoie		699 15
Orens Garneau		377 07
J. Delaney		440 60
R. Barbin		342 00
L. P. Gauvin		307 75
R. Belzile		290 15
J. Barbeau		165 00
A. L. Gareau		100 00
Earl Fraser, Macdonald College		289 56
W. E. N. Hodgins, "		343 51
C. Lyster, "		263 55
G. E. Emberley, "		379 80
E. M. Ewart, "		344 60
		$ 6,141 57
Supplies, renewals, printing and incidentals		814 81
Total		$ 6,956 38

14.—Domestic Science.

April 1, 1915, balance unexpended	$3,949 67	
Expended to December 31, 1915	.....	$3,949 67
Rev. O. L. Martin, Provincial Inspector, salary and expenses		$ 363 10
Grants to schools and academies		3,586 57
Total		$3,949 67

15.—Maple Sugar.

April 1, 1915, balance unexpended	$ 663 56	
Expended to December 31, 1915	.....	$ 663 56
Alfred Lebrun, Inspector, salary and expenses		$ 103 15
P. E. Monty, Instructor		109 73
L. J. A. Dupuis, Supt. Ste. Louise school, allowance, board of students, etc		226 03
Expenses *re* demonstrations		221 30
Incidentals		3 35
Totals		$ 663 56

16.—Conferences, Publications, Etc.

April 1, 1915, balance unexpended	$ 923 66	
Expended to December 31, 1915	.....	$ 923 66
Art. Perrault, *re* co-operative society organization		$ 163 46
V. Vincent, salary and expenses		174 16
J. G. Bouchard, lecturer, salary and expenses		88 55
F. N. Savoie, salary and expenses		131 00
Jos. Pasquet, hon. and expenses		107 10
Rev. H. Bois, "		32 30
Chs. Peloquin, "		19 20
L. Lavallee, "		24 60
Orens Garneau, expenses		12 50
A. L. Garneau, expenses		160 00
Incidentals		10 78
Total		$ 923 66

QUEBEC.

Grant of 1915-16, $215,310.70.

Summary Statement to March 31, 1916.

No.	Classification.	Grant 1915-16.	Expended to March 31, 1916.	Unexpended Balances March 31, 1916.
		$ cts.	$ cts.	$ cts.
1	Poultry	15,000 00	9,543 98	5,456 02
2	Fruit	33,000 00	27,240 60	5,759 40
3	Bacon	16,500 00	15,924 08	575 92
4	Schools of Agriculture	60,000 00	41,405 06	18,594 94
5	Instruction in academies and schools	13,500 00	13,117 00	383 00
6	District representatives	7,500 00	6,180 70	1,319 30
7	Experimental union	2,000 00	1,000 00	1,000 00
8	Clover and alfalfa	4,000 00	3,995 04	4 96
9	Seed	4,500 00	3,957 01	542 99
10	Bee-keeping	9,000 00	8,996 55	3 45
11	Tobacco			
12	Dairying	25,000 00	25,000 00	
13	Drainage	1,000 00	718 20	281 80
14	Domestic science	10,000 00	9,540 41	459 59
15	Maple sugar	4,000 00	2,075 71	1,924 29
16	Lectures and publications	10,310 70	10,310 10	0 60
	Totals	215,310 70	179,004 44	36,306 26

Details of Expenditure of Grant of 1915-16, to March 31, 1916.

1. Poultry.

Grant	$ 15,000 00	
Expended to March 31, 1916	.....	$ 9,543 98
Balance March 31, 1916	.....	5,456 02
Total	$ 15,000 00	$ 15,000 00
Salaries and Expenses—		
Rev. Bro. Liguori, Poultry Superintendent		$ 1,180 63
Leon Picard, Assistant		783 96
J. D. Barbeau, Assistant		355 75
Rev. J. B. A. Allaire, Lecturer		660 03
Art. Chabot, Instructor		536 85
R. Dumaine, "		835 85
J. G. Morgan, "		787 95
Tel. Roy, "		85 70
Art. Larabee, "		148 50
J. Charbonneau, "		70 00
Sundry persons		56 88
Total		$ 5,502 10
Eggs for distribution		314 50
Poultry stations, supplies and equipment		447 23
Poultry services of Superintendents and rental allowance		2,725 00
Printing, exhibits and incidentals		555 15
Total		$ 9,543 98

2. Fruit Culture.

Grant	$ 33,000 00	
Expended to March 31, 1916	.....	$ 27,240 60
Balance March 31, 1916	.....	5,759 40
Total	$ 33,000 00	$ 33,000 00

Salaries and Expenses—		
Solyme Roy, Chief Horticulturist, expenses		$ 767 39
Henri Roy, expenses		779 01
J. H. Lavoie, Assistant Horticulturist		1,222 50
Peter Reid, Superintendent, Demonstration orchards		1,342 11
Rev. V. A. Huard, Entomologist		827 09
D. J. Wood, Conserves expert		163 00
L. E. Kronstrom, expenses		200 00
Rev. P. Leopold, "		191 10
Jos. Cloutier, "		142 24
Alfred Label, Instructor		1,392 35
J. M. Talbot, "		1,106 06
F. X. Gosselin		480 45
Alp. Roy		153 86
R. Cossette		105 12
Phil. Hamel		921 95
Tel. Roy, expenses		50 00
Sundry persons, services and expenses		150 10
		$ 9,994 33
Demonstration orchards, allowances, expenses and rental	$ 2,745 57	
Equipment and supplies	1,773 19	
Nursery at Berthierville, salaries, labour, supplies, trees and incidentals	3,354 56	
Fruit trees for stations and Horticultural societies	959 88	
		$ 8,833 20
Allowances to Oka Institute		1,139 16
Preparation and printing of bulletins and leaflets on fruit culture		6,085 44
Exhibits, printing and incidentals		788 47
Gas engine, Rougemont Demonstration orchard		400 00
Total		$ 27,240 60

3. Bacon Industry.

Grant	$ 16,500 00	
Expended to March 31, 1916	.....	$ 15,924 08
Balance March 31, 1916	.....	575 92
Total	$ 16,500 00	$ 16,500 00

St. Vallier Abattoir and Annex, construction	$ 4,871 46
Furnishings and equipment, including refrigeration	5,469 89
Insurance and incidentals	431 16
Advances	3,466 88
	$ 14,781 79
Salaries and expenses—	
A. Hansen, Bacon Expert	$ 6,831 81
A. C. St. Pierre, Instructor	1,479 17
P. Ruel	181 81
Total	$ 15,924 08

4. Schools of Agriculture.

Grant	$ 60,000 00	
Expended to March 31, 1916	.....	$ 41,405 06
Balance March 31, 1916	.....	18,594 94
Total	$ 60,000 00	$ 60,000 00

Oka Agricultural Institute, grant	$ 15,000 00
Ste. Anne de la Pocatière, School of Agriculture, grant	10,000 00
Board of students	705 06
Macdonald Agricultural College, grant	15,000 00
Orphelinat Agricole à Vauvert, grant	700 00
Total	$ 41,405 06

5. Agriculture in Academies, Rural and Normal Schools.

Grant	$ 13,500 00	
Expended to March 31, 1916	.....	$ 13,117 00
Balance March 31, 1916	.....	383 00
Total	$ 13,500 00	$ 13,500 00

Services as Special Lecturers, sundry persons		$ 3,490 00
Expenses, school gardens		241 20
Supplies for scholars		1,893 32
Prizes, School Fairs		85 66
5,000 Bulletin, No. 12	$ 514 60	
10,000 garden leaflet	100 00	
17,500 "Le Potager Canadien"	1,500 00	
Miscellaneous	83 16	
		$ 2,197 76
Ste. Anne de la Pocatiere—		
Short Course students' indemnity	$ 654 85	
Teachers' Special Course	397 00	
Oka Institute—		
Short Course students' indemnity	947 85	
Teachers' special course	626 05	
Macdonald College—		
Grant for special courses	2,583 31	
		$ 5,209 06
		$ 13,117 00

6. District Representatives.

Grant	$ 7,500 00	
Expended March 31, 1916	.....	$ 6,180 70
Balance March 31, 1916	.....	1,319 30
Total	$ 7,500 00	$ 7,500 00

Salaries and Expenses—		
R. A. Rosseau, District Representative	$ 751 03	
J. C. Magnan, "	1,412 76	
H. Cloutier, "	659 99	
A. Raymond, "	850 43	
J. M. Leclair, "	795 20	
J. A. Desilets, "	671 16	
J. A. Fortin, Assistant District Representative	438 59	
Alp, Paquet, " "	268 35	
Sundry persons	206 72	
		$ 6,057.23
Furnishings, printing and repairs		123 47
Total		$ 6,180 70

7. Experimental Union.

Grant	$ 2,000 00	
Expended to March 31, 1916	.....	$ 1,000 00
Balance March 31, 1916	.....	1,000 00
Total	$ 2,000 00	$ 2,000 00
Grant to Experimental Union		$ 1,000 00

8. Clover and Alfalfa.

Grant	$ 4,000 00	
Expended to March 31, 1916	.....	$ 3,995 04
Balance March 31, 1916	.....	4 96
Total	$ 4,000 00	$ 4,000 00
Salaries and Expenses—		
Mag. Francoeur		$ 696 49
Leo. Brown, Instructor		675 10
L. P. Belzile		650 53
		$ 2,022 12
Demonstration fields, expenses of operation		1,196 71
Leo. Brown, compiling booklet on clover		184 08
10,000 copies "		356 80
10,000 copies Bulletin No. 14		102 77
Photos, engraving, etc.		223 44
Total		$ 2,196 84

9. Seed Selection.

Grant	$ 4,500 00	
Expended to March 31, 1916	.....	$ 3,957 01
Balance March 31, 1916	.....	542 99
Total	$ 4,500 00	$ 4,500 00
Instructors, salaries and expenses—		
Abl Desmarais	$ 334 15	
Leo. Brown	341 15	
L. P. Belzile	361 40	
O. Roberge	405 00	
Ls. Lavallee	305 00	
L. E. Kronstrom	980 85	
M. Francoeur	278 85	
J. A. Paquet, expenses	150 00	
A. Paré	76 90	
		$ 3,033 30
Incidentals		35 42
		$ 3,067 72

10. Apiculture.

Grant	$ 2,000 00	
Expended to March 31, 1916	.....	$ 1,999 42
Balance March 31, 1916	.....	0 58
Total	$ 2,000 00	$ 2,000 00

10. Apiculture—*Concluded.*

Inspectors, Instructors, Salaries and Expenses—		
Dr. L. J. Comiré	$ 893 00	
Elz. Girard	1,043 25	
A. A. Comiré	901 83	
Hector Béland	932 40	
B. Brissette	630 40	
Luc Dupuis	826 45	
L. J. A. Dupuis	844 20	
P. A. Dupuis	663 20	
Edm. Brissette	191 00	
J. H. Comiré	162 29	
O. Comiré	397 25	
D. Rochefort	407 60	
W. J. Comiré	295 75	
G. Nadeau	106 90	
Henri Beland	183 75	
		$ 8,479 27
Supplies, Young Women's Societies		58 90
Roberval School equipment		60 00
Supplies and Incidentals		398 38
Total		$ 8,996 55

12. Dairying.

Grant	$ 25,000 00	
Expended to March 31, 1916	.....	$ 25,000 00
Transferred to the Minister of Agriculture to meet expenses of inspection of Cheese and Butter factories		$ 25,000 00

13. Drainage.

Grant	$ 1,000 00	
Expended to March 31, 1916	.....	$ 718 20
Balance March 31, 1916	.....	281 80
Total	$ 1,000 00	$ 1,000 00
Drainage Specialists, Services and Expenses—		
L. P. Gauvin, Ste. Anne de la Pocatiere	$ 25 85	
O. Garneau, " "	110 73	
C. M. Ewart, Macdonald College	338 99	
G. E. Emberley	92 29	
Jos. Barbeau, expenses	42 20	
		$ 610 06
Incidentals		108 14
Total		$ 718 20

14. Domestic Science.

Grant	$ 10,000 00	
Expended to March 31, 1916	.....	$ 9,540 41
Balance March 31, 1916	.....	459 59
Total	$ 10,000 00	$ 10,000 00
Rev. Ol. Martin, Provincial Inspector, Salary and Expenses		$ 1,006 68
Grants to institutions for domestic science teaching		7,903 43
Expenses Quebec Exhibition		250 70
Printing, leaflets, etc		379 60
Total		$ 9,540 41

15. Maple Sugar.

Grant	$ 4,000 00	
Expended to March 31, 1916	.....	$ 2,075 71
Balance March 31, 1916	.....	1,924 29
Total	$ 4,000 00	$ 4,000 00

Alex. Boulduc, Supt. Beauceville, allowance, expenses, board of students		$ 676 09
J. L. A. Dupuis, Supt. Ste. Louise, allowance, expenses, board of students		579 82
J. H. Lefebvre, Supt. La Minerve, allowance, expenses, board of students		375 00
Jos. Jullen, services and expenses, demonstrations		41 90
Luc. Dupuis, " "		261 45
Alfred Lebrun, Instructor, expenses		25 00
		$ 1,949 26
20,000 Bulletins		110 00
Incidentals		16 45
Total		$ 2,075 71

16. Lectures and Publications.

Grant	$ 10,310 70	
Expended to March 31, 1916	.....	$ 10,310 10
Balance March 31, 1916	.....	0 60
Total	$ 10,310 70	$ 10,310 70

Instructors and Lecturers, etc., services and expenses—

J. L. A. Dupuis	$ 443 90
M. A. P. Hamal	157 10
Art. Perrault	389 85
Rev. Ol. Martin	66 66
J. L. A. Dupuis	317 15
J. G. Bouchand	454 90
Luc. Dupuis	375 80
Rev. H. Bois	604 79
Rev. J. B. A. Allaire	333 33
Rev. N. Pelletier	213 10
G. Reynaud	495 10
A. T. Charron	100 10
C. Vaillancourt	694 50
Rev. A. Michaud	595 50
A. L. Garneau	410 00
M. Belanger	188 10
L. A. Gosselin	485 50
F. Dionne	195 25
F. N. Savoie	515 80
Rev. A. Létourneau	225 25
G. St. Pierre	53 95
Rev. J. P. Lavasseur	155 00
Jos. Pasquet	448 40
W. Gauvin	177 00
J. E. Thrimbault	74 55
Miss A. Desroches	110 10
Miss J. Anstil	119 35
Indemnity, Short Course Students, Ste. Anne	594 35
" " Oka	95 00
Expenses, short courses	412 35
Printing, Lectures on Agriculture, etc	224 15
Incidentals	189 64
Total	$ 10,410 10

QUEBEC.

COMPARATIVE STATEMENT of Expenditure of Provincial Funds for Agricultural purposes for the Years 1913, 1914, 1915, 1916, and Estimated Expenditure for 1917.

Service.	1913 to June 30.	1914 to June 30.	1915 to June 30.	1916 to June 30	1916-17 to June 30. (Estimated)
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Civil Government Salaries and Contingencies	41,533 34	45,220 96	45,500 00	45,424 05	45,800 60
Agricultural Schools	20,208 39	18,534 99	29,863 09	30,000 00	30,000 00
Housekeeping Schools	10,000 00	18,500 00	10,290 29	8,518 00	12,000 00
Agricultural Societies	120,614 08	164,551 98	146,296 56	105,061 96	100,000 00
Farmers' Clubs or Agricultural Circles, including grant to S. Shore Railway	90,851 83	99,650 00	97,000 00	148,020 10	85,000 00
Council of Agriculture	4,529 03	3,665 83	2,787 99	2,272 68	3,000 00
Horticultural and Agricultural Societies, Montreal and Provincial	1,000 00	1,000 00	1,000 00	1,000 00	1,500 00
Veterinary Instruction	5,994 96	5,500 00	4,772 68	6,500 00	5,500 00
Dairying	74,441 50	76,000 00	67,676 14	94,451 64	97,000 00
Provincial Laboratory	2,000 00	1,540 24	2,000 00	4,000 00	2,000 00
Lectures on Agriculture	6,537 56	7,029,44	5,406 09	3,927 21	9,000 00
Fruit Growing	11,856 29	10,865 48	6,580 36	4,605 33	5,000 00
Poultry Raising	3,000 00	3,000 00	2,099 14	2,126 47	3,000 00
Journal of Agriculture	29,000 00	29,000 00	27,000 00	26,624 30	27,000 00
Agricultural Merit	4,000 00	2,607 65	3,270 38	3,298 40	3,500 00
Exhibitions	32,000 00	32,000 00	31,000 00	30,500 00	32,000 00
Miscellaneous	100 00	100 00	100 00	35 00	100 00
School of Agriculture, Ste. Anne de la Pocatière—					
Towards construction	10,000 00				
Towards maintenance	10,000 00	10,000 00			
Totals	477,666 98	528,766 57	482,642 72	516,365 14	461,400 00

MANITOBA.

AGREEMENT, 1915-16.

	Original.	Variations.
	$ cts	$ cts
1 Instructors, Directors and District Representatives (salaries and expenses)	27,000 00	27,000 00
2 Instruction and Demonstrations (including Short Courses)	20,000 00	15,000 00
3 Women's Work (Domestic Science)	7,000 00	7,000 00
4 Boys' and Girls' Clubs	4,000 00	5,000 00
5 Bulletins and miscellaneous printing	2,000 00	7,000 00
6 Instruction in Public and High Schools	1,200 00	200 00
7 Contingencies and miscellaneous	3,221 31	3,221 31
Total	64,421 31	64,421 31

The major portion of the grant to the province of Manitoba was used to promote the extension work carried on by the Agricultural College, in the following departments, namely, district representatives, boys' and girls' clubs, short courses, automobile lectures, and home economics societies. The college staff has been strengthened by the appointment of an instructor in soil chemistry, an apiarist, who besides giving instruction in bee-keeping, acts as provincial inspector of apiaries, an instructor in household arts, and three lecturers in home economics. Besides this the grant contributes part of the salaries of a professor of animal husbandry and a lecturer in horticulture and forestry. On the college farm, a considerable scheme of drainage is being carried out to serve as a basis for instruction and investigation, accompanied by soil analysis and soil survey work.

The balance of the grant was expended directly by the Department of Agriculture on demonstration farm plots, the Killarney farm, in giving instruction in methods of dairying among settlers in the central and northern districts who do not speak English, in the grading of dairy products for export, in assisting in the publication of certain reports and bulletins, and in general publicity in connection with the work of the department.

AGRICULTURAL COLLEGE EXTENSION.

District Representatives.—This movement was inaugurated at the close of the college course in April, 1915, when six graduates were appointed, as follows: N. S. Smith, Killarney; W. T. G. Weiner, Morris; L. V. Lehr, Neepawa; W. J. Stone, Swan River; H. F. Danielson, Arborg; K. W. Gordon, Dauphin; and J. E. Sirett, Roblin. Messrs. Gordon and Sirett were at the time teaching agriculture at the high schools at Dauphin and Roblin respectively, and undertook to do district representative work in addition.

Much attention was given during the season to the organization and oversight of boys' and girls' clubs, judging at fairs, addressing meetings and visiting farmers on request, with a view to advising on such questions as drainage and cultivation, weed and insect control and the rotation of crops.

Six short courses were organized and carried out by the representatives in January and February of 1916. Weather conditions somewhat lessened the attendance expected, and a doubt is expressed as to whether work of this kind in the Prairie Provinces will be found as acceptable on this account as in the East.

Important results from instructional work among the farmers themselves from the first season's operations, are, perhaps, scarcely to be expected, particularly in view of the fact that in the fall succeeding their appointment three of the staff, Messrs. Stone, Gordon, and Danielson enlisted, and the department was thus deprived of their services.

Boys' and Girls' Clubs: The membership of these clubs in 1915 reached a total of 5,500 from sixty-five clubs, embracing about 400 schools, mostly rural. In 1914, the membership was 1,800. The contests engaged in included potato-growing, poultry-raising, hog-raising, fodder-corn growing, woodworking, sewing, and baking. Seed-potatoes, seed-corn and eggs from pure-bred strains of poultry were supplied free. To encourage the exhibit of products at club fairs the department contributed fifty per cent of the prize money. All the clubs held fairs, the attendance ranging from 250 to 500, and averaging about 350. The amount charged to the grant in this connection was $5,900.

Short Courses: The short courses in agriculture and home economics are now under the direction of the extension service. Some of these courses are for men, some for women and a few for both sexes.

During the year six agricultural and home economics combined courses were held, as follows:—

Place.	Subject.	Number Registered.	Number of Sessions.
Winkler	3	90	30
Boissevain	4	140	25
Neepawa	4	110	32
Dauphin	4	160	31
Roblin	2	65	10
Virden	No returns.		

While the usual agricultural topics were taken up in the Men's Courses, the plan was adopted of placing special emphasis on one subject, or to concentrate for a week at a time on a given topic. During one week, animal husbandry was taught; the next being devoted, it may be, to field and garden crops, and the next to dairying, poultry and bee-keeping. At Winkler, Roblin and Dauphin, gas-engine work constituted over one-third of the instruction given, while a supplementary course in this subject was given at Virden for a week after the conclusion of the regular course. The Women's Courses, held independently, comprised instruction by a special staff in dress-making, millinery, home-nursing and cooking.

Home Economics Short Courses: Chiefly under the auspices of the Home Economics Societies, the following courses, usually of one week's duration, were held during the year:—

	Courses.	Sessions.	Registered.
Dressmaking—			
Miss Smith	17	9	425
Miss Senior	19	9	415
Miss Gowsell	12	9	240
Miss Tew	15	9	300
Millinery—			
Miss Smith	10	9	230
Mrs. Graham	15	9	310
Miss Gowsell	3	8	45
Cookery—			
Miss Crawford	6	9	314
One day lectures	..	280	
Miss Gowsell—One day lectures	..	125	
Home Nursing—			
Miss Clarke	18	9	360

While the above courses are carried on very generally in connection with the Home Economics Societies, it is the policy of the Extension Service to organize a course wherever twenty women in a community ask for it. Occasionally, classes are organized for the older school girls and others who desire instruction in dress-making and millinery.

Home Economics Societies: These societies continue to show gratifying increases in number and membership, there being, at the close of the year, 68 societies with a membership of over 3,000 as against 2,080 for the year previous. The energies of these societies have been largely bent towards rendering assistance in patriotic work. No attempt was made, therefore, to organize new societies where there were good Red Cross or other patriotic organizations operating. The usual courses in Dressmaking, Millinery, Cookery and Home-nursing were held during the year. Of these a statement is presented in the section relating to Short Course Work.

Automobile Lectures: In 1915, the plan of running demonstration trains over the railways of the province, accompanied by a staff of lecturers, was discontinued, and a series of six motor-car tours substituted. By this means the instructors were able to reach places situated at some distance from the railways, leaving railway points for winter meetings. Five speakers were assigned to each car—three on agriculture and two on home economics, and 171 summer meetings were held. The total attendance number 30,000.

The speakers were agreed that these lectures enabled them to get into closer touch with farm problems and conditions than had previously been practicable. The subjects dealt with included feeds and feeding, silage and silo construction, poultry raising, moisture conservation, weed control, lightening control, alfalfa inoculation and subjects relating to women's work. Charts and illustrative material were used, and all members of the staff of the Agricultural College took part. Agricultural Societies, Grain Grower's Associations, Municipal Councils and Home Economic Societies rendered valuable assistance in making the meetings a success.

Department of Agriculture.

Dairying in Outlying Districts: A special dairy instructor and an interpreter are employed in central and northern Manitoba among the Ruthenians and other non-English speaking communities. This work has been going on since 1913, when Mr. W. J. Crowe was first placed in charge. He reports that the instruction given has been particularly helpful among the Ruthenians. Herds have increased from two or three to ten or twelve head, and whereas the output was formerly so inferior that it could hardly be disposed of, good cream is now being regularly shipped to the creameries. Not only is the amount of cream supplied by the outlying districts steadily increasing in quantity, but it is continually improving in quality as well. In addition to the instructor and an interpreter engaged in the work referred to, the salary and expenses of the Grader of Dairy Products, L. A. Gibson, were also paid from the grant.

Publicity: In January of the present year, Mr. George Bathe was appointed Publicity Agent for the Department and shortly afterwards was placed in charge of the Publications Branch. In addition to supervising the printing and distribution of reports, bulletins, etc., a news letter is sent out containing agricultural intelligence, which is made wide use of by agricultural and local papers, while advertisements and posters announcing short courses are prepared and arranged for. The salary and expenses of the officer are met from the grant.

During the year assistance was given by the grant towards the printing of a number of leaflets, bulletins and reports issued by the Department, including among others one on "Woodworking Problems" for use in connection with Boy's and Girl's Club Contests.

THE MANITOBA DEMONSTRATION FARM SYSTEM.

In the year 1912, the Minister of Agriculture for Manitoba, realizing the need for the adoption of better methods of soil cultivation and crop growing, and knowing that the best authorities on these subjects in Canada believed that the failure of farmers to follow a well-defined system of crop rotation was largely responsible for unsatisfactory results on many farms, submitted to the Honourable Minister of Agriculture for Canada a plan by which it was proposed to use part of the federal grant in establishing a series of demonstration farms or plots, for the purpose of bringing about an improvement in conditions. These Demonstration Farms were to consist of forty acres each, to be located on a main highway close to a town or village, the trading point for a recognized agricultural district.

Twelve of these farms, each consisting of 40 acres of leased land, were located during the summer of 1913, and two the following year. An agreement was entered into with the owner to perform such work as might be required by the Department at a rate which was agreed upon as satisfactory. The provincial Department of Agriculture had a substantial fence erected to enclose each farm and divided same into five acre fields, and heavy platform scales, as well as other implements, were purchased in order that the work might be satisfactorily carried on.

In 1914, the entire forty acres in each case were summer-fallowed, and the first crops were sown in the spring of 1915. The results from the grain fields in 1915, given in the statement below, may be considered as reasonably satisfactory. However, the better results that are to be looked for from a scientific rotation of crops cannot be expected until the system has been in operation for a term of years. About one-quarter of the total area was devoted to clover and alfalfa for which no return was made during the first year.

The Killarney Demonstration Farm.

The land on which the Killarney demonstration farm is being established was purchased in 1914, and has an approximate area of seventy-five acres. Sixty-two acres are either in crop, planted with fruit or ornamental trees and bushes, or included in the farmstead plan. The balance is waste, caused by the river and the lake outlet. This is fenced and used for pasture, so far as available.

This farm may be classed as a general purpose demonstration farm, with the growing of hardy varieties of fruits as its leading feature.

Buildings: House, 28 by 30, with kitchen and sleeping balcony on back, 12 by 14. Veranda across front and half way down each side, 10 feet wide.

Barn, 36 by 40, with 16-foot stud, arranged for stabling five horses, box stall and harness room, and six cattle stalls and a box stall.

Machinery shed, 22 by 50, with 8-foot stud. This shed is the size recommended for a half section and was erected to demonstrate this, as well as to shelter machinery used on the farm.

Poultry house, 14 by 28, accommodating one hundred hens.

Ice-house, 10 by 12.

Live Stock: There are at present two teams of horses on the farm, one heavy draught and one agricultural, and one grade cow. It is the intention to purchase good grade Shorthorn cows and breed up and select for milk production.

Field Husbandry: In 1915 there were about nineteen acres of corn planted, nine acres of oats seeded, and the balance of the farm summer-fallowed.

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In 1916 the farm was surveyed for a crop rotation, seed selection work and a small amount of cultural work. On the portion of the farm left unsurveyed for the present year feed is being produced. The rotation to be adopted on one acre plots is the following: (1) wheat, (2) oats, (3) barley, (4) corn, (5) wheat, (6) oats, (7) corn. (8) alfalfa.

Cultural Work: Rates of seeding of grasses and legumes are being tested on forty-two one-quarter acre plots; methods of summer-fallowing on twenty-one plots; varieties of wheat, oats, and barley on sixty-three plots. Six varieties of each are being tested. Two and a half acres were seeded with alfalfa for seed production, but due to the land being very weedy, it was necessary to plough this up for the season. One and a half acres were seeded with white sweet clover to cut and put in silo.

Seed Selection Work: A number of quarter-acre plots were laid out for seed selection work, with a view to starting a centre for seed improvement. This work is arranged in a rotation so as to test out varieties of corn, peas and roots.

Horticultural Work:

Planting 1915—

84 standard apples	7	varieties.
48 crab apples	4	"
12 Compass cherry	1	"
24 plums	2	"
36 gooseberry	3	"
72 currants	6	"
6 Beta grape	1	"
349 raspberries	7	"

No fruit trees or bushes planted in 1916, but a number of ornamental shrubs were set out and preparations are being made for a great deal of planting in the season of 1917.

DEMONSTRATION FARMS CROP REPORT, 1915.

Warren Demonstration Farm.

(Six-year rotation with alfalfa for six years continuously.)

Field No. 1. Summer-fallow seeded to clover June 28.
" No. 2. Corn.
" No. 3. Wheat, 62 bushels per acre.
" No. 4. Oats, 92 bushels per acre.
" No. 5. Corn.
" No. 6. Wheat, 60 bushels per acre.
" No. 7. Alfalfa, seeded June 26.

Carberry Demonstration Farm.

(Rotation six years and alfalfa for six years continuously.)

Field No. 1. Clover, sown June 11.
" No. 2. Corn, frozen.
" No. 3. Wheat, 26½ bushels per acre; No. 1 hard.
" No. 4. Oats, 74 bushels per acre.
" No. 5. Fodder corn, killed by frost.
" No. 6. Wheat, 25 bushels per acre; No. 1 hard.
" No. 7. Alfalfa, sown June 11.

Baldur Demonstration Farm.

(Rotation, six course and alfalfa.)

Field No. 1. Oats, 15 bushels and 13 pounds per acre.
" No. 2. Fodder corn; killed by summer frosts.
" No. 3. Wheat, 29 bushels and 47 pounds per acre.
" No. 4. Summer-fallowed.
" No. 5. Wheat, 24 bushels per acre.
" No. 6. Wheat, 33 bushels and 32 pounds per acre.
" No. 7. Alfalfa.

Harding Demonstration Farm.

(Six-year rotation with alfalfa for six years continuously.)

Field No. 1. Summer clover.
" No. 2. Fodder corn, 1,924 pounds per acre.
" No. 3. Wheat, 39 bushels and 8 pounds per acre.
" No. 4. Oats, 104 bushels and 12 pounds per acre.
" No. 5. Fodder corn, 9,720 pounds per acre.
" No. 6. Wheat, 37 bushels per acre.
" No. 7. Alfalfa.

Virden Demonstration Farm.

The Superintendent reported the yield of barley in 1914 as 960 bushels on 40 acres, or 24 bushels per acre.

Boissevain Demonstration Farm.

(Six-year rotation with alfalfa for six years continuously.)

Field No. 1. Summer-fallow, seeded to Common Red Clover.
" No. 2. Corn.
" No. 3. Wheat, 18 and ⅜ bushels per acre, badly blown out by wind.
" No. 4. Oats, 65 bushels and 27 pounds per acre.
" No. 5. Fodder corn.
" No. 6. Wheat, 28 bushels and 56 pounds per acre.
" No. 7. Alfalfa, first year.

Portage La Prairie Demonstration Farm.

(Six-year rotation with alfalfa for six years continuously.)

Field No. 1. Summer-follow, sown to clover in late summer.
" No. 2. Ear corn, frozen.
" No. 3. Wheat, 30 bushels per acre.
" No. 4. Oats, 78 bushels per acre.
" No. 5. Corn, spoiled by frost.
" No. 6. Marquis wheat, 25 bushels per acre, blown by wind.
" No. 7. Alfalfa, first year.

Souris Demonstration Farm.

(Six-course rotation, with alfalfa for six years continuously.)

Filed No. 1. Summer-fallowed, seeded to clover.
" No. 2. Corn, badly frosted.
" No. 3. Wheat, 20 bushels per acre.
" No. 4. Oats, 65 bushels per acre.
" No. 5. Corn, badly frosted.
" No. 6. Wheat, Marquis, 25 bushels per acre.
" No. 7. Alfalfa, sown June 12.

Deloraine Demonstration Farm.

(Rotation six years and alfalfa for six years continuously.)

Field No. 1. Summer-fallow.
" No. 2. Seeded to clover.
" No. 3. Wheat, 42 bushels per acre.
" No. 4. Oats, 92 and ⅜ bushels per acre.
" No. 5. Fodder corn, frozen.
" No. 6. Wheat, 40 bushels per acre.
" No. 7. Alfalfa.

Somerset Demonstration Farm.

(Seven-year rotation, with alfalfa for seven years continuously.)

Field No. 1. Wheat, 47¾ bushels per acre.
" No. 2. Oats, 82·4 bushels per acre.
" No. 3. Wheat, 48·70 bushels per acre.
" No. 4. Fodder corn, frozen.
" No. 5. Wheat, 49·23 bushels per acre.
" No. 6. Barley, 45·86 bushels per acre.
" No. 7. Corn, frozen.
" No. 8. Alfalfa, sown 1915.

St. Pierre Jolys Demonstration Farm.

This farm was summer-fallowed in 1914, but the sow thistles were not kept down, and it was decided to defer subdividing until 1916, and in the meantime to sow the land to some bulk crop. In 1915, Marquis wheat was sown on 30 acres and a part in fodder corn.

Elkhorn Demonstration Farm.

(Rotation seven course and alfalfa for seven years continuously.)

Field No. 1. Wheat, 30 bushels per acre.
" No. 2. Oats, 97 bushels per acre.
" No. 3. Wheat, 36 bushels per acre.
" No. 4. Corn, frozen.
" No. 5. Wheat, 36 and ⅛ bushels per acre.
" No. 6. Barley, yield not stated.
" No. 7. Fodder corn, frozen.
" No. 8. Alfalfa.

Arborg Demonstration Farm.

About 1½ acres of timber and scrub cleared and broken up in 1915. Surveyed during 1914-15. The whole farm fenced in 1915. A great deal of cleaning up and summer-fallowing in 1915 but none of the land was cropped.

APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

(A) *List of Persons, Regularly Employed, whose Salaries are Paid wholly from the Agricultural Instruction Grant.*

Editor, Agricultural Publications, George Batho.
Instructor in Chemistry, A. J. Galbraith.
Instructor in Household Arts, Miss C. L. Groff.
Dairy Inspector, W. J. Crowe.
Inspector Dairy Produce, L. A. Gibson.
District Representative, L. V. Lohr.
" W. T. G. Wiener.
" N. S. Smith.
" R. M. Muckle.
" W. R. Roberts.
" J. H. Hudson.
" J. R. Bell.
" J. H. Kiteley.
" A. Skorobohacz.
" F. T. Boresky.
" F. F. Parkinson.
" S. J. Sigfusson.
Home Economics Lecturer, Miss E. Crawford.
" Miss Margaret Smith.
" Miss. A. Hay.

(B) *List of Persons Receiving Part Salary from Federal Grant.*

Professor of Animal Husbandry, F. S. Jacobs.
Secretary, Horticulture and Forestry, J. A. Neilson.
Accountant, J. P. Grant.

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MANITOBA.

Grant 1915-16.

SUMMARY STATEMENT APRIL 1, 1915, TO MARCH 31, 1916.

Number.	Classification.	Grant.	Grant as Amended.	Balance on hand April 1, 1915.	Total.	Expended to Mar. 31, 1916.	Balance on hand Mar. 31, 1916.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1	Instructors, Directors and District Representatives (salaries and expenses	27,000 00	27,000 00	1,951 98	28,951 98	22,120 17	6,831 81
2	Instruction and Demonstration, (including short courses.)	20,000 00	15,000 00	28,814 06	43,814 06	29,910 05	13,904 01
3	Women's Work	7,000 00	7,000 00	2,137 82	9,137 82	8,372 60	765 22
4	Boys' and Girls' Clubs	4,000 00	5,000 00	1,434 75	6,434 75	5,901 15	533 60
5	Bulletins and Miscellaneous Printing	2,000 00	7,000 00	23 75	7,023 75	6,173 57	850 18
6	Instruction to Public and High Schools	1,200 00	200 00	2,500 00	2,700 00	200 00	2,500 00
7	Contingencies and Miscellaneous	3,221 31	3,221 31	1,539 37	4,760 68	3,157 12	1,603 56
		64,421 31	64,421 31	38,401 73	102,823 04	75,834 66	26,988 38

DETAILS OF EXPENDITURE, APRIL 1, 1915, TO MARCH 31, 1916.

1. INSTRUCTORS, DIRECTORS AND DISTRICT REPRESENTATIVES.

Grant, 1915-16	$ 27,000 00	
Balances April 1, 1915 —		
Agricultural Instructors	1,725 00	
Dairying	226 98	
Expended to March 31, 1916		$ 22,120 17
Balance on hand March 31, 1916		6,831 81
Total	$ 28,951 98	$ 28,951 98

W. T. G. Welner, District Representative, salary	$ 1,260 23
N. S. Smith, " "	1,260 23
L. V. Lohr, " "	1,260 23
H. F. Danielson, " "	1,206 66
W. K. Gordon, Representative and Lecturer	324 98
L. Slrett, " "	541 66
R. M. Muckle, Apiary Inspector and Instructor	1,284 92
W. J. Crowe, Dairy Instructor, salary	1,166 66
L. A. Gibson, Inspector Dairy Products	1,884 00
E. Crupak, Interpreter	225 00
Geo. H. Jones, Inspector Demonstration Farms	1,200 00
A. J. Galbraith, Instructor in Soil Chemistry, M.A.C.	866 64
J. A. Neilson, Lecturer in Horticulture, M.A.C., part salary	375 00
W. J. Stone, District Representative, etc.	731 53
R. A. Henry, Killarney Farm	483 98
J. Evans, services and expenses	62 50
F. S. Jacobs, Professor of Animal Husbandry, M.A.C., part salary and expenses	32 57
Mrs. C. L. Groff, Demonstrator in Household Art, M.A.C.	566 13
Travelling and incidental expenses	6,153 48
Total	$ 22,120 17

2. Instruction and Demonstration.

(*Including Short Courses.*)

Grant, 1915-16	$ 15,000 00	
Balances, April 1, 1915—		
(1) Bee-keeping	1,428 61	
(2) Demonstration Trains	1,976 42	
(3) Demonstration Farms	5,023 83	
(4) Field Husbandry	9,319 31	
(5) Poultry	1,530 00	
(6) Weeds	1,169 25	
(7) Produce Marketing	4,055 25	
(8) Alfalfa plots	1,801 31	
(11) Drainage	628 84	
(16) Vegetables, Horticulture	1,881 24	
Expended to March 31, 1916	.....	$ 29,910 05
Balance on hand March 31, 1916	.....	13,904 01
Total	$ 43,814 06	$ 43,814 06
Killarney Farm—		
Labour, materials, equipment, buildings, etc.	$ 9,032 24	
Demonstration Farms—		
Fencing, labour, seed, etc.	7,347 21	
Drainage at M.A.C.	3,756 40	
		$ 20,135 85
Short course expenses, etc.	$ 3,000 59	
Travelling expenses of district representatives, demonstrators, and college staff, including motor service, automobile lecture tours; supervision of Demonstration Farms, etc.	2,236 52	
Services and expenses, sundry persons, lecturers at short courses, etc.	2,807 60	
		$ 8,044 71
A. J. Austman, Chemistry investigations		199 48
Prizes		973 23
Difference on Cheque No. 512, 1914-15		24 13
Grant Brandon Poultry Association		300 00
Wool operating		160 65
4 Balopticans		242 00
Total		$ 30,080 05
Less receipts for Seed Corn, Killareny		170 00
Total		$ 29,910 05

3. Women's Work.

(*Home Economics.*)

Grant, 1915-16	$ 7,000 00	
Balances, April 1, 1915—		
(12) Home Economics	1,897 86	
(13) "	239 96	
Expended to March 31, 1916	.....	$ 8,372 60
Balance on hand, March 31, 1916	.....	765 22
Total	$ 9,137 82	$ 9,137 82
Miss H. M. Gowsell, salary		$ 1,375 00
Services and expenses, assistants, lecturers, short courses, etc.		5,621 81
Supplies, advertising, printing, incidentals		348 29
Grants		1,027 50
Total		$ 8,372 60

4. Boys' and Girls' Clubs.

Grant, 1915-16	$ 5,000 00	
Balance April 1, 1915	1,434 75	
Expended to March 31, 1916	.....	$ 5,901 15
Balance on hand March 31, 1916	.....	533 60
Total	$ 6,434 75	$ 6,434 75
Eggs, potatoes, seed, supplies and incidentals, distributed to clubs		$ 4,164 10
Fair grants		1,414 20
Judging at fairs		226 60
Services and expenses		96 25
Total		$ 5,901 15

5. Bulletins and Miscellaneous Printing.

Grant, 1915-16	$ 7,000 00	
Balance April 1, 1915	23 75	
Expended to March 31, 1916	.....	$ 6,173 57
Balance on hand March 31, 1916	.....	850 18
Total	$ 7,023 75	$ 7,023 75
Printing, engraving, mailing and incidentals *re* leaflets on alfalfa, birds, spraying, hay and pasture, fodder corn, bees, rye. "Horticulturist"		$ 2,499 13
"Wood Working Problems"		1,575 00
Printing College report		1,065 00
		$ 5,139 13
Advertising		80 00
Geo. Batho, Publicity Agent, salary, 3 months		624 99
" travelling		29 45
W. J. Abel, salary		300 00
Total		$ 6,173 57

6. Instruction in Public and High Schools

Grant, 1915-16	$ 200 00	
Balance "Farm Mechanics" April 1, 1915	2,500 00	
Expended to March 31, 1916	.....	$ 200 00
Balance on hand March 31, 1916	.....	2,500 00
Total	$ 2,700 00	$ 2,700 00
Grant to Holland Consolidated school		$ 200 00

7. Contingencies and Miscellaneous.

Grant, 1915-16	$ 3,321 31	
Balance April 1, 1915—		
(15) Excursions	1,000 00	
(19) Miscellaneous	439 37	
Expended to March 31, 1916	.....	$ 3,187 13
Balance on hand March 31, 1916	.....	1,573 55
Total	$ 4,760 68	$ 4,760 68
Jas. F. Grant, accountant, salary		$ 783 33
W. Johnson, accounting		858 00
W. Barber, publicity		40 00

CONTINGENCIES AND MISCELLANEOUS—*Concluded.*

Special services—		
J. B. Skaptason, accounting 3 years	$ 300 00	
Mrs. Dickson	200 00	
		$ 500 00
Colin Smith, indemnity, accident at farm	$ 600 00	
D. Harris	400 00	
	$ 1,000 00	
Smith cheque refused and cancelled	600 00	
		400 00
Printing, postage, stationery and incidentals		684 05
Typewriter and furniture, office of Editor of Agricultural publications		224 75
Total		$ 3,157 12

MANITOBA.

COMPARATIVE STATEMENT OF EXPENDITURE OF PROVINCIAL FUNDS FOR AGRICULTURAL PURPOSES FOR THE YEARS 1913, 1914 AND 1915, AND ESTIMATED FOR 1916.

Service.	1913 To Nov. 30.	1914 To Nov. 30.	1915 To Nov. 30.	1916 To Nov. 30, Appropriations.
	$ cts.	$ cts.	$ cts.	$ cts.
Department—Salaries	14,729 97	14,700 00	14,555 00	13,700 00
" Office Expenses	1,675 28	1,496 07	1,727 81	3,000 00
Agricultural Societies and Farmers' Institutes, Judging, Seed Fairs, etc.	41,937 40	39,426 53	45,815 78	
Supt. Agricultural Societies			2,300 00	
Agricultural Statistics	3,412 77	2,702 70	3,825 18	
Noxious Weeds Inspection	4,896 29	5,612 99	5,974 51	97,450 00
Grants to Live Stock Associations, Winter Fairs, Exhibitions and Societies (Dom. Fair, $20,000, special in 1913)	36,473 00	19,229 00	5,707 72	
Manitoba Agricultural College—				
Salaries	68,393 02	76,190 00	103,709 95	
Maintenance	36,461 85	52,172 71	65,791 83	273,498 35
Fuel	12,537 55	40,342 06	35,337 25	
Totals	220,517 13	251,872 08	284,775 03	387,648 35
Revenue—				
Agricultural College fees, etc.	16,509 91	18,175 77	42,876 10	78,500 00
Net Total	204,007 22	233,696 31	241,898 93	309,148 35

SASKATCHEWAN.

Agreement, 1915-16.

1. College of Agriculture	$22,800 00
2. Instructors, Directors, Superintendents and District Representatives—Salaries and expenses	27,600 00
3. Instruction and Demonstration in live stock, dairying, soils, crops, etc., including short courses	7,000 00
4. Women's work	4,500 00
5. Boys' and girls' work	1,100 00
6. Bulletins and miscellaneous printing	3,000 00
7. Instruction in Public, High and Normal Schools in Agriculture, Nature Study and Domestic Science, school gardens, training of teachers	1,000 00
8. Contingencies and miscellaneous	1,011 04
Total	$68,011 04

In this province the grant is divided into three parts, one part being disbursed by the College of Agriculture of the University of Saskatchewan, one by the Department of Agriculture, and one by the Department of Education.

Department of Agriculture.

The expenditure made by the Department of Agriculture is chiefly on account of demonstration and instruction. It includes the organization of co-operative marketing of farm products, the employment of travelling instructors in live stock, dairying and field husbandry and the operation of demonstration trains. In the case of the Co-operation and Markets Branch and the Demonstration Trains, the cost of the work is borne entirely by the grant. In other phases of the work, the grant supplements provincial funds.

Co-operative Organizations, $3,199.

The educational and development work to promote co-operative production and marketing of farm products is in the hands of a director and an assistant, whose salaries and expenses are charged to the grant. Their principal work is to gather and disseminate information, and to encourage and assist organizations by aiding in drawing up articles of incorporation, by-laws, etc., and by supplying speakers to give advice upon the particular line of work which the association has in view.

Of the 173 associations (5,537 shareholders) reporting for 1915, 148 were engaged in co-operative purchasing and in live stock marketing, and 9 in other lines of business, the balance being recently organized.

A special effort had been made by the branch to encourage co-operative stock marketing and, in addition to distributing over 8,000 copies of a bulletin dealing with the subject, and supplying live stock marketing receipt and account forms free, a representative of the branch has, since January 1, 1916, assisted five associations in handling their first shipments of stock. This representative assisted the local manager in receiving, marketing, grading and shipping the stock. He then proceeded to the terminal market, aided in selling the stock and showed the manager how to properly apportion the expenses and forward the returns to the farmers. By this means associations are encouraged to make a start, and when once they have experienced the benefits to be derived, further assistance will be unnecessary.

The wool gathering project undertaken in 1914 was again conducted in 1915 with very satisfactory results. In 1914, 180 sheep owners, whose combined clip aggregated 69,404 pounds, marketed their wool through the branch, and realized an average net price of 16½ cents per pound. In 1915, 318 sheepmen sold 150,328 pounds of wool through the branch. The expense of handling, warehousing and insurance amounted to half a cent per pound. After deducting this and the cost of sacks, freight to Regina and cartage the net amount received by the farmers was 23·66 per pound.

This work will again be undertaken this season, and arrangements have already been made to have the wool graded by expert graders provided by the Dominion Live Stock Branch. This will enable the Branch to make payment on a quality basis and should induce a much larger proportion of the sheepmen of the province to market their wool clip through that office.

To encourage a greater production of poultry and poultry produce, a co-operative poultry marketing project was undertaken jointly by the Branch and the Poultry Husbandry Department of the College of Agriculture in the fall of 1915. The co-operation of the Canadian Northern Railway was secured, and a baggage car, fitted up as a poultry receiving and killing station, was provided and operated for six weeks, from October 25 to December 3, over C.N.R. lines in the northern portion of the province, 34 points being visited. The itinerary of the car was widely advertised and poultry raisers were invited to fit up their birds and bring them in alive to the car. Competent demonstrators from the College of Agriculture gave demonstrations in the proper methods of killing, plucking and packing. After the birds had been killed, plucked and graded, a representative of the Co-operative Organization Branch took delivery of them and made advance payments to the producers at graduated prices consistent with the quality of the birds. The poultry was then packed in boxes, placed in storage and subsequently sold, when a final payment was forwarded to the producers, who were thus paid every cent realized from the sale, less cost of boxes, transportation and storage charges.

During the period covered by this report the following quantities of literature relative to agricultural co-operative work have been distributed in the province:—

8,500 copies, Bulletin No. 41, Co-operative Live Stock Marketing.

10,500 copies, Bulletin No. 42, Suggested Lines of Co-operative Production.

6,500 copies of the Agricultural Co-operative Associations Act and Standard By-laws.

12,000 copies of Explanation of the Agricultural Co-operative Associations Act.

Animal Husbandry, $4,682.

During the summer of 1915 three travelling instructors in animal husbandry were employed under the direction of the Saskatchewan Live Stock Commission, their salaries and expenses being paid out of the grant. These men assisted in the distribution of live stock and visited and advised purchasers regarding care and management. Their services in the advancement of the horse breeding industry were performed in connection with the administration of part 2 of the Horse Breeders Act, relating to inspection and licensing.

Dairying, $3,290.85.

The salaries and expenses of two dairy instructors and the expenses of a third were paid out of the grant during 1915-16. One inspector was charged with the inspection of cream buying stations. Another of his duties is the inspection of districts from which requests have been received for the organization of new creameries, so as to determine their suitability. He also aids in organizing co-operative creamery com-

panies where organization is deemed advisable. A third instructor relieves the managers of local creameries to enable them to visit creamery patrons and confer with them regarding methods by which their dairying operations can be improved. An important part of the work of the dairy instructors was the holding of special meetings either in connection with special dairy car or otherwise. Ninety-one meetings were held with an attendance of 3,536.

Field Husbandry, $1,714.

During 1915 two travelling instructors, graduates of the Manitoba Agricultural College, were employed under the direction of the Weeds and Seed Commissioner and paid out of the grant.

Much of the time of the field representatives was directed to the development of work among the boys and girls although matters connected with the administration of the Noxious Weeds Act also received their attention.

Demonstration Trains, $6,424.

Two separate trains were equipped and operated for several weeks over the Canadian Northern and Canadian Pacific railways. One train was manned mainly by the regular staff of the department and was organized to give instruction in field husbandry, poultry raising, building construction and domestic science. One car was provided for giving illustrated lectures for boys and girls, and an empty coach was fitted with toys and equipment to entertain children too small to be interested in the educational features.

The second train, which operated from Saskatoon, carried two cars of live stock and a car of mechanical exhibits, as well as the usual lecture and demonstration cars for field husbandry, poultry husbandry and household science. Children's cars were provided. The lecture staff consisted mainly of members of the college staff.

About 38,000 people visited the train, comprising 18,000 men, 12,000 women, and 8,000 children, and its educational value becomes more apparent each season. The trains were provided free by the railway companies, and all expenses were met by the grant.

Short Courses for Veterinary Surgeons, $500.

The second Summer School of the Saskatchewan Veterinary Association was held at the College of Agriculture, Saskatoon, August 4, 5, 6, 1915. A grant of $500 for expenses was made out of the Dominion subsidy. Dr. L. A. Merillat, Professor of Surgery, McKillop Veterinary College, Chicago, Dr. C. D. McGilvray, Chief Inspector, Dominion Health of Animals Branch for Manitoba, as well as a number of Saskatchewan veterinarians, gave valuable lectures and demonstrations. The association published a report of its Short Course which contains much valuable information.

UNIVERSITY OF SASKATCHEWAN.

College of Agriculture.

Salaries and general	$[illegible]
Women's work	[illegible]
	[illegible]

The grant received by this institution contributes very materially to the instruction, research and extension work of the College of Agriculture. By far the greater portion of it is devoted to strengthening the college staff, as it is believed that in this way the objects aimed at can best be secured.

The grant provides for the salaries of three professors—cereal husbandry, animal husbandry and poultry; of five assistant professors—animal husbandry, dairying, engineering, physics, and chemistry, and also of a director and a lecturer for women's work.

Each of the men in agriculture has been required to divide his attention between teaching, research and extension work. The following is a summary of the work performed by the extension service during the year: Short courses of from two to four days each, 35, with a total recorded attendance of 11,656; dairy meetings, 122; poultry shows, 25; two better-farming special trains; one poultry demonstration car and one dairy demonstration car; seed fairs, 84; standing crop competitions, 23; ploughing matches, 61; exhibitions, 113; stallion shows, 13.

A summary of the activities carried on by departments of the college, with which are associated the members of the staff who are provided for by the grant, will indicate the nature of the work performed by them, apart from that of teaching and college extension.

Cereal Husbandry: In this department important investigations, already extending over two years, are being undertaken, covering the following projects:

1. Variety testing for wheat, winter rye, and winter wheat, oats barley and flax. The test is designed to determine the relative value of the varieties experimented with, both for immediate results and as a basis for improvement.

2. Management: Under this head are included (a) a study of smut and its control; (b) a study of size and quality of seed in relation to its value for seeding purposes; (c) fanning-mill test in relation to seeding value of different grades of wheat and oats; (d) depth, dates and rates of seeding, dates of cutting, time of stooking, time of threshing.

3. Improvement of Cereals: (a) Wheat: yield, milling qualities, baking qualities, and earliness are the general considerations. The varieties being improved are Marquis, Red Fife, Bobs, Prelude, Hard Red Calcutta, Kubanka (Durum wheat) and certain Dr. Saunders varieties; (b) oats: resistance to loose smut, greater purity and freedom from inclination to produce false wild oats are the chief considerations. The varieties being improved are Banner, Victory, Gold Rain, Abundance, Ligowo, Daubeney; (c) barley: objects, purity and uniformity. The following varieties are being dealt with O.A.C. No. 21, Manchurian, Hannchen, Canadian Thorpe; (d) peas: objects, ease in germination, purity, productiveness. Varieties, Solo, Arthur, and others; (e) flax: nine varieties being studied for seed and oil purposes as well as fibre; (f) hybridization and cross-pollination tests for wheat and barley, and a test of the Gartons' regeneration theory.

Animal Husbandry: This branch is giving special attention to the building up of a dairy herd for teaching purposes. Similar work is being done in the sheep, swine and horse departments. Animals are supplied for the demonstration train. A poultry plant is operated with similar objects and purposes.

Homemakers' Clubs: The work of Homemakers' Clubs is carried on as a branch of the College Extension Service under the supervision of a director and an assistant. Over 160 of these clubs have been formed, including organizations among the Ruthenian population. The activities of the clubs have a wide range, including an active interest in every form of community work, in schools, hospitals, rest-rooms, and in the Red Cross and other patriotic movements. An annual convention is held at the university, the attendance this year being 300.

SESSIONAL PAPER No. 15c

DEPARTMENT OF EDUCATION.

Agricultural Instruction Committee.

To direct the policy of the department, which is to extend instruction in agriculture and household science to the public schools, high schools and normal schools, a committee known as the Agricultural Instruction Committee was appointed by the Minister of Education. This committee consists of the Superintendent of Education, the Deputy Ministers of Education and Agriculture, the Director of Extension Work of the College of Agriculture, the Dean of the College of Agriculture, the Professor of Agricultural Engineering, the Principals of the two Provincial Normal Schools and the two Directors of School Agriculture.

Directors. Salaries, $6,000; Expenses, $1,666.

In January, 1915, Miss Fannie A. Twiss was appointed Director of Household Science, and in May, Mr. F. W. Bates, M.Sc., and Mr. A. W. Cocks, B.Sc., were appointed, on the recommendation of the Agricultural Instruction Committee, Directors of School Agriculture. The duties of the two latter include the supervision of the teaching of agriculture and nature study in the schools of the northern half and the southern half of the province, respectively. The directors are also responsible for the instruction in the Normal Schools at Saskatoon and Regina, in agriculture, nature study, and school gardening. They also give lectures in agriculture, nature study and school gardening to the third class normal sessions which are held at various points throughout the province during the winter months. It has been found necessary for the directors to address a large number of meetings of teachers and the general public in order that the work of agricultural instruction may be carefully explained. These lectures have often been illustrated by means of lantern slides. A considerable portion of the directors' time is taken up with the organization of Rural Education Associations and school fair work.

Household Science.

The duties of the Director of Household Science, Miss Twiss, consist of the supervision of the teaching of household science in the schools of the province and therefore most of her time is occupied in inspection and in addressing trustees and ratepayers in order to encourage them to establish household science departments in the schools of the towns, villages and rural districts. Miss Twiss has been successful in persuading the school boards in several of the smaller towns to provide equipment for the teaching of household science, and in many rural districts the teachers are commencing this work by means of a noonday lunch. Miss Twiss lectures to the students at the Normal Schools and also to teachers at institutes and conventions.

Summer School, $1,145.

The summer school which is held each year in July at the University of Saskatchewan, Saskatoon, provides special courses in agriculture, elementary science and household science for the teachers of the province. Teachers who satisfactorily complete a two years' course are granted diplomas. The work of the school is under the supervision of the Directors who receive great assistance from the staff of the university. The charge against the grant includes the return railway fares of teachers satisfactorily completing the course, and the accommodation provided in the university residence at the rate of $1 per day.

School Gardens.

An attempt was made by means of circulars and addresses given by the directors to explain the aim of school gardens to teachers and ratepayers throughout the province. This was very successful, as evidenced by the increased number of school gardens during 1915. As no grant is made to a district on account of the school garden work the improvement is particularly gratifying. In many districts it is still almost impossible for the teacher and pupils to conduct a garden owing to destruction by gophers or to the unsatisfactory nature of the school grounds. The home gardens are always encouraged whether or not a garden on the school grounds is possible.

Improvement of School Grounds.

Arrangements were made with the Chief of the Tree-planting Division of the Division of the Dominion Forestry Farm, Indian Head, and with the Superintendent of the Provincial Nurseries, Regina, for the free distribution of trees and shrubs to school districts. The Directors supply school officials with instructions regarding the cultivation of the ground and in many cases with plans for the same. The grounds are inspected and when the Directors are satisfied that the land has been properly prepared, trees are supplied. As a result of this arrangement over one hundred districts have commenced work which will result in considerable improvement of the school grounds.

School Fairs, $220.

Prior to 1915, a few school fairs were conducted by teachers' associations and other organizations. Although no very systematic organization of this work was attempted, the Directors assisted at many school fairs by judging the exhibits and by speaking to the public on the subject of such exhibitions. Probably fifty school fairs were held in Saskatchewan during 1915.

Rural Education Associations.

As a result of the study of the school fair movement the Directors were able to formulate a policy, which has received the approval of the Agricultural Instruction Committee, whereby Rural Education Associations are being organized in the municipalities of the province. It has been decided that the rural municipality shall be taken as the unit for organization and that all teachers, trustees and individuals interested in education shall be encouraged to become members of the association.

The objects of these organizations are to promote and develop the use of the school garden as an educational factor, to organize school fairs, contests for boys and girls, boys' and girls' clubs, etc., to organize literary societies and to encourage the use of the school building as a community centre, in fact an attempt is being made to make these associations feel responsible for the general educational advancement of the whole community.

Publications $1,447.

The following is a list of school agriculture circulars prepared by the Directors for the information and assistance of teachers and trustees:—

"No. 1, Distribution of Trees and Shrubs"; "No. 2, Suggestions for Teachers" (supplies information respecting birds and their importance to the farmer, native plants, garden tools, experiments and demonstrations for garden work, text books, etc.); "No. 3, Rural Education Associations", "No. 4, Seed Catalogue for School Gardens"; "No. 5, School Fairs"; "No. 6, The School Garden", a bulletin of nearly 70 pages, dealing with all phases of the school garden movement in Saskatchewan.

Two other circulars, "Gardening for the Schools of Saskatchewan" and "Tree Planting for the Schools of Saskatchewan" have already been distributed and are proving to be of considerable assistance to both teachers and trustees.

SESSIONAL PAPER No. 15c

APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

(A) *Officers, regularly employed, whose salaries are paid wholly from the Agricultural Instruction Grant.*

Field Representative, J. W. Hunter, Live Stock Branch, Department of Agriculture, Regina.
Dairy Inspector, J. A. McDonald, Department of Agriculture, Regina.
" P. E. Reed, Department of Agriculture, Regina.
Field Representative, L. C. Wirtz, Dairy Branch, Department of Agriculture, Wadena.
District Representative, J. G. Rayner, North Battleford.
Professor of Cereal Husbandry, G. H. Cutler, Saskatoon.
Professor of Animal Husbandry, A. M. Shaw, Saskatoon.
Assistant Professor of Animal Husbandry, W. H. J. Tisdale, Saskatoon.
Assistant Professor of Agricultural Engineering, J. MacGregor Smith, Saskatoon.
Professor of Poultry Husbandry, R. K. Baker, Saskatoon.
Assistant Professor of Dairying, K. G. MacKay, Saskatoon.
Assistant Professor of Physics, A. E. Hennings, Saskatoon.
Assistant Professor of Chemistry, T. Thorvaldson, Saskatoon.
Director of Women's Work, Miss A. DeLury.
Lecturer for Homemakers' Clubs, Miss Daisy Harrison.
Director, School of Agriculture, F. W. Bates, Department of Education, Saskatoon.
" " A. W. Cocks, Department of Education, Regina.
" " Miss F. A. Twiss, Dept. of Education, Regina.

(B) *Officers, regularly employed, whose salaries are paid in part from the Agricultural Instruction Grant.*

Director, Co-operative Work, W. W. Thomson, Department of Agriculture, Regina.
Assistant Director, Co-operative Work, *W. G. Mawhinney, Department of Agriculture, Regina.

(C) *Officers employed a part of each year whose salaries are paid from the Agricultural Instruction Grant.*

Field Representative, J. S. Fulton, Live Stock Branch, Department of Agriculture, Regina.
Field Representative, M. P. Tullis, Weeds Branch, Department of Agriculture, Saskatoon.
Field Representative, Wm. Thomson, Weeds Branch, Department of Agriculture, Veregin, Sask.
Field Representative, R. J. Lewis, Weeds Branch, Department of Agriculture, Vandura, Sask.

* Enlisted

SASKATCHEWAN.

GRANT OF 1914-15—SUMMARY STATEMENT, APRIL 1, 1915, TO SEPTEMBER 30, 1915.

Classification.	Balance brought forward April 1, 1915.	Expended to Sept. 30, 1915.	Unexpended.	Overexpended.
	$ cts.	$ cts.	$ cts.	$ cts.
1. School Courses in Agriculture and Domestic Science	5,817 76	5,534 01	283 75	
2. College of Agriculture	15,300 98	15,261 11	39 87	
3. Demonstrations in Animal Husbandry	3,478 46	3,465 50	12 96	
4. Demonstrations in Dairying	1,842 05	1,842 05		
5. Demonstrations in Field Husbandry and Weed Control	1,518 68	1,518 68		
6. Co-operation in Production and Marketing	2,228 74	2,209 26	19 48	
7. Demonstration Trains	4,983 68	5,222 54		238 86
8. Veterinary Short Course	500 00	500 00		
Total	35,670 35	35,553 15	356 06	238 86
Net balance				117 20

DETAILS OF EXPENDITURE APRIL 1, 1915, TO SEPTEMBER 30, 1915.

1. SCHOOL COURSES IN AGRICULTURE AND DOMESTIC SCIENCE.

Balance brought forward April 1, 1915	$ 5,817 76	
Expended to September 30, 1915		$ 5,534 01
Balance on hand Sept. 30, 1915		283 75
Total	$ 5,817 76	$ 5,817 76

Instructors, Directors and Superintendents, salaries	$ 3,199 97
" " " expenses	889 23
Boys' and girls' work, (Clubs, Competitions, Fairs, School Gardens, etc.)	220 00
Summer Schools, Regina and Saskatoon	765 48
Bulletins, reports, printing, etc.	981 52
Contingencies and miscellaneous	163 25
	$ 6,219 45
Less refunds	3 20
	$ 6,216 25
Less accounted for in Report of 1914-15, p. 84	682 24
Total	$ 5,534 01

Summer Schools: This item includes railway fares for teachers attending, subsistence of teachers, special lecturers and sundry supplies in connection with the summer schools held at Regina and Saskatoon.

2. COLLEGE OF AGRICULTURE.

Balance brought forward April 1, 1915	$ 15,300 98	
Expended to Sept. 30, 1915		$ 15,261 11
Balance on hand Sept. 30, 1915		39 87
Total	$ 15,300 98	$ 15,300 98

2. College of Agriculture—*Concluded.*

Instruction and Research: Salaries—		
Six professors and assistant professors, part time		$ 1,657 68
Two assistants, full time		3,500 00
Nine instructors and assistants		3,391 08
Extension Work: Salaries—		
Six professors and assistant professors, part time		2,937 60
Director and Lecturer, women's work		1,349 96
Women's work expenses		1,672 09
Short courses in rural districts		422 70
Total		$ 17,261 11

3. Demonstrations in Animal Husbandry.

Balance brought forward April 1, 1915	$ 3,478 46	
Expended to Sept. 30, 1915	.....	$ 3,465 50
Balance on hand Sept. 30, 1915	.....	12 96
	$ 3,478 46	$ 3,478 46

Salaries and Expenses—	Salary.	Expenses.	
J. W. Hunter	$ 600 00	$ 393 33	
R. W. Brett	509 68	689 97	
J. S. Fulton	423 19	849 37	
	$ 1,532 87	$ 1,932 68	$ 3,465 55

4. Demonstrations in Dairying.

Balance brought forward April 1, 1915	$ 1,842 05	
Expended to September 30, 1915	.....	$ 1,842 05
Total	$ 1,842 05	$ 1,842 05

Salaries and Expenses—	Salary	Expenses	
J. A. McDonald	$ 750 00	$ 356 53	
C. L. Wirtz	270 97	185 95	
	$ 1,020 97	$ 542 50	
Expenses inspecting farm dairies			$ 1,563 47
" operating dairy cars			282 56
			175 72
			$ 1,942 03
Less Jas. Graham refund			100 00
Total			$ 1,842 03

5. Field Husbandry and Weed Control.

Balance brought forward April 1, 1915	$ 1,518 65	
Expended to September 30, 1915	.....	$ 1,518 65
Total	$ 1,518 65	$ 1,518 65

Salaries and Expenses—	Salary	Expenses	
A. J. McPhail	$ 500 50	$ 248 91	
J. G. Raynor	200 00	188 75	
E. H. Hawthorne	661 64	682 93	
T. L. Guild	100 00	—	
W. Betts	66 66	78 20	
J. L. Brown	66 66	—	
	$ 1,594 96	$ 1,198 79	
Incidentals			$ 2,793 75
			4 90
			$ 2,798 65
Refund re Agricultural Societies' Convention			1,279 80
Total			$ 1,518 85

6. Co-operation in Production and Marketing.

Balance brought forward April 1, 1915	$ 2,228 74	
Expended to September 30, 1915	.....	$ 2,209 26
Balance on hand September 30, 1915	.....	19 48
Total	$ 2,228 74	$ 2,228 74

Salaries and Expenses—	Salary.	Expenses.	
W. W. Thomson	$ 900 00	$ 60 50	
L. E. Kirk	200 00	96 30	
W. G. Mawhinny	167 74	—	
	$ 1,267 74	$ 156 80	
			$ 1,424 54
Printing			778 69
Incidentals			6 03
Total			$ 2,209 26

7. Demonstration Trains.

Balance brought forward April 1, 1915	$ 4,983 68	
Expended to September 30, 1915	.....	$ 5,222 54
Balance over expended September 30, 1915	238 86	
Total	$ 5,222 54	$ 5,222 54

Salaries		$ 1,350 62
Expenses		2,474 75
Printing		1,290 40
Equipment		386 50
Incidentals		12 59
		$ 5,514 86
Refund interest		292 32
Total		$ 5,222 54

8. Veterinary Short Course.

Balance brought forward April 1, 1915	$ 500 00	
Expended to September 30, 1915	.....	$ 500 00
Total	$ 500 00	$ 500 00

Grant to Saskatchewan Veterinary Association 1915	$ 500 00

SESSIONAL PAPER No. 15c

SASKATCHEWAN.

Grant of 1915-16.

Summary Statement October 1, 1915, to March 31, 1916.

No.	Classification.	Grant 1915-16	Balances (Cr.) brought forward Oct. 1, 1915.	Total	Expended to Mar. 31, 1916.	Balance on hand Mar. 31, 1916.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1.	College of Agriculture	22,800 00	39 87	27,339 87	13,725 44	13,614 43
4	Women's work	4,500 00				
2.	Instructors, directors, superintendents and district representatives—salaries and expenses	27,600 00		27,600 00	7,913 63	19,686 37
3.	Instruction and demonstration in live stock, dairying, soils, crops, etc., including short courses	7,000 00	32 44	7,032 44	1,440 42	5,592 02
5.	Boys' and Girls' work	1,100 00		1,100 00		1,100 00
6	Bulletins and miscellaneous printing	3,000 00		3,000 00	1,253 03	1,746 97
7.	Instruction in public, high and normal schools in agriculture, nature study and domestic science, school gardens, training of teachers	1,000 00	283 75	1,283 75	405 45	878 30
8.	Contingencies and miscellaneous	1,011 04		1,011 04	162 03	849 01
	Interest accrued		114 24	114 24		114 24
		68,011 04	470 30	68,481 34	24,900 00	43,581 34

Details of Expenditure, October 1, 1915, to March 31, 1916.

1.—College of Agriculture.

Grant 1915-16—College of Agriculture	$ 22,800 00	
" —Women's work	4,500 00	
Balance brought forward, Oct. 1, 1915	39 87	
Expended to March 31, 1916		$ 13,725 44
Balance on hand March 31, 1916		13,614 43
	$ 27,339 87	$ 27,339 87
Instruction and Research, Salaries—		
Six Professors and Assistants, part time		$ 3,781 22
Two Professors, full time		1,399 98
Extension Work—		
Six Professors and Assistants, part time		3,418 71
Director and Lecturer in women's work		1,499 92
Short courses in rural districts		3,417 82
Expenses, women's work		487 69
Total		$ 13,725 44

Names of six professors charged (part time) on item "Instruction and Research," and (part time) on "Extension Work":—

J. McG. Smith, Assistant Professor Agricultural Engineering.
R. K. Baker, Professor of Poultry.
A. M. Shaw, Assistant Professor Animal Husbandry.
G. H. Cutler, Second Professor Field Husbandry.
W. H. J. Tisdale, Assistant Professor Animal Husbandry.
K. G. McKay, Assistant Professor Dairying.

Names of two professors charged (full time) on item "Instruction and Research":—

A. E. Hennings, Assistant Professor Physics.
T. Thorvaldsen, Assistant Professor Chemistry.

Names of director and lecturer on "Women's Work":—

Miss A. Delury, Director.
Miss D. Harrison, Lecturer.

2.—Instructors, Directors, Superintendents and District Representatives—Salaries and Expenses.

Grant 1915-16		$ 27,600 00	
Expended to March 31, 1916		.....	$ 7,913 63
Balance on hand March 31, 1916		.....	19,686 37
		$ 27,600 00	$ 27,600 00
Department of Agriculture—			
Live stock—	Salary.	Expenses.	
J. W. Hunter, Field Representative.	$ 600 00	$ 208 60	
J. S. Fulton, " ..	92 90	314 60	
			$ 1,216 10
Weeds—			
E. Hawthorne	$ 159 43	$ 36 05	
			195 48
Dairying—			
J. A. McDonald, Inspector	$ 750 00	$ 92 50	
P. E. Reed, "	375 00	107 40	
F. M. Logan, Field Representative	.....	47 80	
L. C. Wirtz, " ..	.....	76 10	
			1,448 80
Co-operative Work—			
W. W. Thomson, Dir. Co-op. work	$ 750 00	$ 152 51	
John Ames	30 00	55 31	
Expense	.....	1 70	
			989 52
Department of Education—			
Miss Twiss	$ 799 98	$ 519 64	
A. W. Cocks, Dir. of Sch. of Agric.	1,200 00	142 74	
F. W. Bates, " ..	1,200 00	178 92	
Sundry Persons expenses	.....	22 45	
			4,063 73
			$ 7,913 63

3.—Instruction and Demonstration.

Grant 1915-16		$ 7,000 00	
Balances brought forward Oct. 1, 1915—			
"Demonstrations Animal Husbandry"	$12 96		
"Co-operation"	19 48		
		32 44	
"Demonstration Trains"		.....	$ 238 86
Expended to March 31, 1916		.....	1,201 56
Balance on hand March 31, 1916		.....	5,592 02
		$ 7,032 44	$ 7,032 44
Better Farming Train—			
Maintenance and travelling		$ 1,076 73	
Wages		90 00	
Equipment		34 83	
			$ 1,201 56

6.—Bulletins and Printing.

Grant 1915-16	$ 3,000 00	
Expended to March 31, 1916	.....	$ 1,253 03
Balance on hand March 31, 1916	.....	1,746 97
	$ 3,000 00	$ 3,000 00
Department of Agriculture—		
Lithographing for Weed Bulletin	$ 595 00	
Printing for Dairy Instruction	34 68	
Printing for Co-operative work	157 39	
		$ 787 07
Department of Education—		
Seed Catalogue for School Gardens	$ 143 70	
Pamphlet, "Suggestions for Teachers"	88 40	
Pamphlet, "Rural Education Associations"	95 66	
Office supplies	67 95	
Postage for distribution of publications	50 00	
Multigraphing circular letters	20 25	
		465 96
		$ 1,253 03

7.—School Instruction in Agriculture.

Grant 1915-16	$ 1,000 00	
Balance brought forward Oct. 1, 1915—		
"School Courses in Agriculture and Domestic Science"	283 75	
Expended to March 31, 1916	.....	$ 367 07
Balance on hand March 31, 1916	.....	916 68
	$ 1,283 75	$ 1,283 75
Education Department—		
Summer Schools—		
Railway fares		$ 5 [illegible]
Subsistence of teachers at Summer School, Saskatoon		400 00
		$ 405 [illegible]
Less refund of interest to Oct. 30, 1915		38 [illegible]
		$ 367 07

8.—Contingencies and Miscellaneous.

Grant 1915-16	$ 1,011 [illegible]	
Expended to March 31, 1916		$ 162 [illegible]
Balance on hand March 31, 1916		848 [illegible]
	$ 1,011 [illegible]	$ 1,011 [illegible]
Education Department—		
Chemical Apparatus		[illegible]
Balopticon and accessories		89 25
Agricultural Instruction Committee		[illegible]
		$ 162 [illegible]

SASKATCHEWAN.

COMPARATIVE STATEMENT of Expenditure of Provincial Funds for Agricultural purposes for the Years 1913, 1914, 1915, and estimated Expenditure for 1916.

Service.	1913-14. To April 30.	1914-15. To April 30.	1915-16. To April 30.	1916-17. To April 30. (Estimated.)
	$ cts.	$ cts.	$ cts.	$ cts.
Department Salaries and General Expenses.	41,186 38	39,536 09	66,347 93	40,795 00
General Agricultural Interests—Agricultural Societies; Provincial Organization; Grants; Contingencies	56,148 90	67,739 52	68,549 34	67,600 00
Live Stock Industry	68,575 84	23,593 85	35,636 95	30,300 00
Dairy and Poultry Industries	471,272 25	84,600 63	87,986 43	71,100 00
Agricultural Statistics and Publicity	33,413 43	36,404 16	26,635 82	26,900 00
Bacteriological Laboratory	8,111 11	8,443 74	8,040 88	8,400 00
Weed Control and Game Protection	18,398 52	19,588 94	18,272 69	8,900 00 Weeds 10,100 00 Game.
Bureau of Labour—				
Farm and domestic labour and factory inspection	55,542 00	8,968 35	7,594 60	9,600 00
Miscellaneous Services—				
Vital statistics; Natural History, Scholarships, Brands, etc., expenses under Agricultural Instruction Act	27,892 19	24,352 72	21,235 31	9,100 00
Totals	780,540 62	337,228 00	340,299 95	282,795 00
Less Revenue	552,340 78	179,291 51	104,283 41	95,500 00
	228,199 84	175,936 49	236,016 54	187,295 00
Education Department—				
College for Agricultural Extension	24,000 00	24,000 00	24,000 00	24,000 00
Manual training and domestic science organization			1,800 00	1,800 00
Grand Total	252,199 84	181,936 49	261,816 54	213,095 00

Note.—Vital Statistics transferred to Bureau of Public Health at beginning of fiscal year 1914-15.

ALBERTA.

Agreement, 1915-16.

1. Schools of Agriculture—		
(*a*) Maintenance	$ 36,000 00	
(*b*) Equipment and buildings	2,000 00	
		$ 38,000 00
2. Provincial Instructors—Salaries and Expenses—		
Dairying		4,000 00
3. Instruction and Demonstration—		
(*a*) Demonstration farms	$ 3,200 00	
(*b*) Demonstration trains	5,000 00	
(*c*) Dairying	3,000 00	
		11,200 00
4. Women's work		1,500 00
5. Bulletins and publications		1,800 00
6. Miscellaneous		28 82
Total		$ 56,528 82

Schools of Agriculture.

In the report for 1914-15 the Alberta Schools of Agriculture were fully described, and an outline given of the courses in agriculture and household science; but in view of the fact that considerably more than half the grant is expended on these schools, it will perhaps not be amiss to again draw attention to the leading facts connected with them.

The plan adopted by Alberta for instructing farm boys in the business of farming and girls in home economics, differs from that in vogue in provinces where agricultural education is centralized at a provincial college. It is not necessary, in order to qualify for admission to the Alberta schools that pupils shall have completed a high school or even a grade course. Another feature is that students are not compelled to attend a college situated a long way from their homes, but find close at hand a school of low cost where they can acquire instruction of a kind to fit them for life on the farm. The schools are designed to meet the needs of the people on the land for instruction in sound farming methods, irrespective of race, religion, scholastic attainment or money resources.

Some will, doubtless, look beyond this to higher spheres. For such, provision is made at the University of Alberta, where, after a two-years' course at one of the schools of agriculture the student may take up advanced work during the three-year course provided at the college.

In connection with each school a demonstration farm is being operated, where practical application is made of the instruction given in the school; but these farms are not more pretentious than any young farmer might reasonably look forward to possessing.

The schools have now completed the third year of operation. This year the total enrolment was 330, as compared with 285 for the previous year. A noteworthy feature was the increase in the number of girls taking the domestic science course, the figures being 70 for 1914-15, and 109 for 1915-16. These figures give evidence of the success of the schools, and also of the increasing interest which the farmers of the province are taking in them.

During the past year, many improvements were effected, making for the more efficient handling of the increasing number of students. The teaching staffs were augmented, and a new building erected at each of the schools, consisting of a large stock-judging pavilion with an agronomy laboratory overhead.

The members of the second graduating class, who have just completed their two-years' course and received their diplomas, number seventy. Thirteen men of the '15 class have been this winter continuing their study of scientific agriculture at the University of Alberta, where the recently created faculty of agriculture provides a three-year course leading to the B.S.A. degree. The work at Edmonton is a continuation of that at the schools of agriculture.

Up to the present over forty men from the three schools have enlisted.

Maintenance, $28,088: Buildings and Equipment, $3,557.

The cost of maintaining the schools of agriculture is charged to the grant. By expenditure for maintenance is understood the disbursement of all moneys incidental to the operating of the schools, such as payments of regular and special instructors, clerical and janitor help, fuel, printing, express, telephone, etc., the largest item being the salaries of the staff. The regular staff of each school consisted during the year of the following:—

Four male instructors for the four standard departments of field husbandry, animal husbandry, farm mechanics and science, the subjects of English farm mathematics and farm book-keeping being allotted or distributed according to the fitness of special lecturers for this general type of work. This year, 1916, an additional lecturer has been added in one school to relieve the principal, whose duties of general administration, correspondence and instruction were increased by the large attendance. Three special lecturers in veterinary science, dairying and poultry, do most of the work for the three schools. Three lady instructors are required for the work in household science, which included cooking, plain and fancy sewing, laundering and home nursing.

In addition to instruction by the recognized staff, occasional lectures or courses of lectures are given by officials of the department and others, on subjects in which they have specialized.

Seed Growing Competitions.

Early in 1915, the first competition in the production of alfalfa seed was arranged among the students of the three schools of agriculture, Olds, Vermilion and Claresholm. The contestants, fifty in number, were supplied with Alberta-grown seed, donated by Mr. W. A. McGregor of Medicine Hat. This was sown in the spring of 1915 and will be harvested this year, the students being advised in both operations by the instructors of field husbandry attached to the school staffs.

The prize money, comprising fifty dollars to each school, was voluntarily donated by three lumber companies doing business in the province. These companies have taken a great interest in the competitions from the start, their representatives visiting many of the students' home plots, accompanied by the field instructor. So well convinced were they that great benefits were likely to result that, in 1916, they again offered prizes for a new competition, to be concluded in 1917, thus giving the freshmen classes a chance to take part.

Already, in each of the fifty neighbourhoods where the plots have been started, interest is being aroused in this crop, and it is expected that the results will be felt over a large portion of the province. But this is not the only, nor indeed, the chief result that may be looked for: the principle underlying the movement goes far deeper.

What is being done in alfalfa is also being worked out in many other lines, but the alfalfa competitions serve as an illustration. The undertaking not only promotes alfalfa growing, and thus benefits the agriculture of the province, but it affords the students an opportunity of applying in a practical way, on their home farms, the principles taught them at the schools of agriculture. This is the really important result from an educational point of view, and serves to illustrate the very practical manner in which the schools are being conducted.

INSTRUCTION AND DEMONSTRATION.

Demonstration Farms, $5,916.

The Provincial Demonstration Farms are seven in number and are situated at Medicine Hat, Claresholm, Olds, Sedgewick, Vermilion, Stony Plain and Athabaska. It will be seen that they are widely distributed, thus serving different parts of the province. The leading reasons for their establishment are:

1. To illustrate the best practice in soil treatment, cropping, and the care of live-stock, for the instruction of the people of the district in which the farms are situated, and also those of districts where soil and climatic conditions are similar. The practice of the farms is intended for illustration and inspection, but later the results will be embodied in reports.

2. To furnish suitable accommodation and occasion for farm meetings and conventions.

3. To furnish object teaching and chances for observation to the pupils of the Schools of Agriculture, who are practically all from farms.

4. To provide types and breeds of live stock for the animal husbandry teaching of the schools.

5. To furnish pure-bred stock, pure seed, and farm building plans to those in need of them.

6. To conduct dairy and feeding tests for the improvement of stock interests of the neighbourhood.

Dairying, $7,258.

Dairying forms a prominent feature in the work carried on in connection with the demonstration farms and schools, conducted by the Department of Agriculture of the province. As part of this work, demonstrations have been given as to the capacity of the double purpose Shorthorn as a milk producer.

Under the allotment to Demonstration Farms are included the purchase of pure-bred stock for demonstration purposes such as the Dairy Shorthorn bull, "Director," the Holstein "King Segis Pontiac Alcartra II" and the Jersey, "Brampton's Safety First." Coupled with the cost of the animal is the cost of transportation, insurance, etc.

The expenditure under educational dairying includes the expense of carrying on testing and instruction in testing work, the purchase of equipment, printing and the purchase of prizes. All prizes consist of pure bred live stock. Mr. S. G. Carlyle, Superintendent and Dairy Expert for the Demonstration Farms, had charge of this work, and his salary and expenses are provided for under Section 2.

Demonstration Trains, $4,967.

A very complete itinerary was carried out during the year. This included sections of the Canadian Pacific, Grand Trunk Pacific, Canadian Northern and Edmonton and Dunvegan railways. Seventy points were visited, the chief work being done on the newer lines. The services and exhibits included the interests of live stock, weeds and seeds, agricultural schools, demonstration farms, women's work of all kinds, dairying, poultry, and game conservation and protection.

Women's Work, $1,486.

The work of the Department on behalf of women takes account of the organization of institutes, lectures at institutes, short course schools, and the distribution of special bulletins and other literature. The grant was used on account of salaries, printing, travelling and advertising.

Bulletins and Publications, $776.

The department has recently added to its services a publications branch, through which the reports and bulletins of the department may be critically and carefully prepared. The office is intended to act as an intelligence service for the activities of the department in its relations with other departments, other governments and the press. It is regarded as an important branch of extension service in that its issues are of responsible and accurate character. It is likewise intended to serve as an office for the gathering of classified information on agricultural, extension and administrative matters. The allotment for bulletins and publications is devoted to supporting this service.

APPOINTMENTS PROVIDED BY DOMINION GRANT.

(A) *Officials whose salaries are paid wholly from the Agricultural Instruction Grant:—*

Instructor in Dairying and Dairy Farming, S. G. Carlyle, Department of Agriculture, Edmonton.
Editor of Publications, Jas. McCaig.
Stenographer.

(B) *Officials whose salaries are paid in part from the Agricultural Instruction Grant:—*

Vermilion School.

Principal, F. S. Grisdale, Vermilion.
Stenographer.
Instructor in Science, E. S. Hopkins, Vermilion.
Instructor in Farm Mechanics, L. Shanks, Vermilion.
Instructor of Animal Husbandry, H. H. McIntyre, Vermilion.
Plotman, Robt. Pilkie, Vermilion.
Instructor in Domestic Science, Fern Hotton, Vermilion.
Assistant Instructure in Domestic Science, A. M. Lavalee, Vermilion.
Nurse, Annie McKenzie, Vermilion.

Olds School.

Principal, W. J. Elliott, Olds.
Field Husbandry, A. E. Meyer, Olds.
Agricultural Mechanics, G. R. Holeton, Olds.
Instructor in Science, Jas. G. Taggart, Olds.
Agronomist, O. S. Longman, Olds.
English Instructor, J. H. McNally, Olds.
Instructor, Household Science, Miss Elizabeth Cumming, Olds.
Stenographer, Miss Isabella Ore, Olds.
Labourer, L. Neary, Olds.

Claresholm School.

Principal, W. J. Stephen, Claresholm.
Instructor in English and Elementary Science, J. C. Hooper, Claresholm.
Instructor, Animal Husbandry, H. W. Scott, Claresholm.
Instructor, Domestic Science, Myrtle A. Hayward, Claresholm.
Assistant Instructor, Domestic Science, Grace Robertson, Claresholm.
Teacher, A. E. Qually, Claresholm.
Teacher, A. Faulkner, Claresholm.
Stenographer, Mabel Moir, Claresholm.
Teamster, B. Andrews, Claresholm.

Women's Institutes.

Superintendent, Miss Mary McInnes, Department of Agriculture, Edmonton.
Stenographer, Miss Helen Hutchings.

ALBERTA.

GRANT, 1915-16, $56,528.82.

STATEMENT FOR THE YEAR ENDING MARCH 31, 1916.

No.	Classification.	Grant 1915-16.	Balances, April 1, 1915.	Total.	Expended to Mar. 31, 1916.	Balances Carried Forward.	
						Unexpended.	Overexpended.
		$ cts.	$ cts.	$ cts.	$ cts	$ cts	$ cts.
1	Schools of Agriculture—						
	(a) Maintenance. 36,000	.....	.....	36,000 00	29,570 37	6,429 63	
	(b) Equipment..... 2,000	3,000 00	2,239 91 763 60	5,003 51	4,677 24	326 27	
2	Provincial Instructors—						
	Dairying.	4,000 00	72 55	4,072 55	3,919 99	152 56	
3	Instruction and Demonstration—						
	(a) Demonstration Farms. 3,200	.....	309 90	3,509 90	5,916 42	.....	2,406 52
	(b) " Trains. 5,000	.....	.....	5,000 00	4,957 12	42 88	
	(c) Dairying..... 3,000	11,200 00	2,457 71	5,457 71	3,338 52	2,119 19	
4	Women's Work.....	1,500 00	13 95	1,513 95	1,486 34	27 61	
5	Bulletins and Publications.....	1,800 00	.....	1,800 00	775 99	1,024 01	
6	Miscellaneous..... ..	28 82	777 81	806 63	.....	806 63	
						10,928 78	
						2,406 52	
		56,528 82	6,635 43	63,164 25	54,641 99	8,522 26	

INTEREST ACCOUNT.

March 31, 1915, Accrued Interest.....	$299 15
March 31, 1916 "	343 70
	$642 85

1.—SCHOOLS OF AGRICULTURE.

(a) *Maintenance.*

Grant, 1915-16..	$ 36,000 00	
Balance April 1, 1915 "Operation"..	.....	$ 1,482 67
Expended to March 31, 1916..	.....	28,087 70
Balance carried forward..	.....	6,429 63
Total..	$ 36,000 00	$ 36,000 00
Salaries, Olds, Vermilion, Claresholm..		$ 19,172 94
Services—		
W. H. Scott, teacher..	$ 300 00	
D. Chalmers..	120 00	
W. R. Barker..	50 00	
Office assistance..	60 00	
		$ 530 00
Supplies, repairs, travelling, stationery, incidentals..		8,384 76
Total..		$ 28,087 70

Supplies include laboratory, dairy, laundry, chemical and physical supplies.

1.—Schools of Agriculture.

(b) Equipment and Buildings.

Grant, 1915-16	$ 2,000 00	
Balances April 1, 1915—		
"Equipment"	2,239 91	
"Buildings"	.....	$ 1,120 61
"Library"	763 60	
Expended to March 31, 1916	.....	3,556 63
Balance carried forward	.....	326 27
Total	$ 5,003 51	$ 5,003 51

Farm implements, teaching appliances		$ 2,968 97
Books for Library		390 50
Buildings Account—		
Balance of contract and extras Vermilion, box stalls, Brimacombe and Glassford	$ 122 41	
Claresholm, box stalls, labour and material	74 75	
		197 16
Total		$ 3,556 63

Building account: Supplementary expenditure in box stall barns built in previous years.

2.—Provincial Instructors.

Dairying (Salaries and Expenses).

Grant, 1915-16	$ 4,000 00	
Balance April 1, 1915	72 55	
Expended to March 31, 1916	.....	$ 3,919 99
Balance carried forward	.....	152 56
Total	$ 4,072 55	$ 4,072 55

S. G. Carlyle, salary	$ 3,250 00
General expenses	669 99
Total	$ 3,919 99

3.—Instruction and Demonstration.

(a) Demonstration Farms.

Grant, 1915-16	$ 3,280 00	
Balance April 1, 1915	309 90	
Expended to March 31, 1916	.....	$ 5,916 42
Balance carried forward	2,326 52	
Total	$ 5,916 42	$ 5,916 42

Purchase of Breeding Stock	$ 3,707 42
Insurance	213 00
Incidentals	95 97
R. C. Davidson, buildings, Athabaska	1,900 00
Total	$ 5,916 42

The expenditure for buildings at the Athabaska Farm covered contract price of horse barn and implement shed.

3.—Instruction and Demonstration.

(*b*) *Demonstration Trains.*

Grant, 1915-16	$ 5,000 00	
Expended to March 31, 1916	.....	$ 4,957 12
Balance carried forward	.....	42 88
Total	$ 5,000 00	$ 5,000 00

Materials, supplies, labour, advertising and incidentals	$ 4,175 22
Meals and berths	781 90
Total	$ 4,957 12

3.—Instruction and Demonstration.

(*c*) *Dairy Competitions.*

Grant, 1915-16	$ 3,000 00	
Balance April 1, 1915	2,457 71	
Expended to March 31, 1916	.....	$ 3,338 52
Balance carried forward	.....	2,119 19
Total	$ 5,457 71	$ 5,457 71

A. Lamont, Milk Tester, salary	$ 735 48
MacNeill, services	55 00
Office assistance	165 00
Live stock prizes	1,370 50
Supplies, equipment and incidentals	662 54
Carlyle, expenses	350 00
Total	$ 3,338 52

4.—Women's Work.

Grant, 1915-16	$ 1,500 00	
Balance April 1, 1915—		
"Domestic Science"	13 95	
Expended to March 31, 1916	.....	$ 1,486 34
Balance carried forward	.....	27 61
Total	$ 1,513 95	$ 1,513 95

Salaries: Miss Mary MacIsaac and Miss Carlyle	$ 600 00
Printing and stationery	536 83
Supplies, travelling and incidentals	349 51
Total	$ 1,486 34

5.—Bulletins and Publications.

Grant, 1915-16	$ 1,800 00	
Expended to March 31, 1916	.....	$ 775 99
Balance carried forward	.....	1,024 01
Total	$ 1,800 00	$ 1,800 00

Jas. G. McCaig, salary	$ 435 48
Minute and hand-books	327 74
Incidentals	12 77
Total	$ 775 99

6.—Miscellaneous.

Grant, 1915-16	$ 28 82	
Balance April 1, 1915	777 81	
Balance carried forward	.....	$ 806 63
Total	$ 806 63	$ 806 63

ALBERTA.

Comparative Statement of Expenditure of Provincial Funds for Agricultural Purposes for the Years 1913, 1914, 1915, and Appropriations for 1916.

Service.	1913.	1914.	1915.	1916 Appropriations.
	$ cts.	$ cts.	$ cts.	$ cts.
Civil Government	30,329 30	36,911 29	48,329 94	49,520 00
Live Stock—				
Live Stock and Agricultural Institutes and Associations; Fat Stock Shows; Destruction of Wolves; Stock Inspection; Brands and Brand Book; Grants to Live Stock Associations; Spring Stock Show	44,789 38	60,981 07	47,736 83	46,100 00
Fairs and Exhibitions—				
Official Judges, Production of Pure Seed Grain, and Seed Fair, Fairs Association, etc.	95,826 51	107,365 49	117,226 18	121,500 00
Poultry—				
To encourage Poultry Industry; Grant to Poultry Association	8,972 65	8,547 83	8,300 37	8,200 00
Dairying—				
Advances to Creameries; to encourage dairy work	111,710 36	175,024 81	249,851 53	19,500 00
Demonstration Farms—				
Administration and operation	73,620 58	66,840 44	70,231 95	65,000 00
Schools of Agriculture—				
Operation; Agricultural instruction; Scholarships	3,605 95	1,375 40	20,503 11	20,500 00
Statistics; Protection of Game Prairie Fires	34,270 19	48,373 26	45,371 79	32,500 00
Grants—				
United Farmers Irrigation Association, Women's Institutes, Destruction of Noxious Weeds, Natural History Society	30,591 45	31,708 08	27,640 66	30,000 00
Bacteriological and Pathological Work	7,705 80	9,000 00	9,000 00	
Sundries and Contingencies	1,003 51	500 00	1,694 19	1,000 00
	442,425 68	546,627 70	645,786 55	393,820 00
Less Revenue	202,268 00	272,318 00	342,086 00	
	240,167 68	274,309 70	303,700 55	

BRITISH COLUMBIA.

Agreement 1915-16.

1.	Appointment of Inspectors, Instructors, Directors, Superintendents, and District Representatives—Salaries and expenses	$ 10,000 00
2.	Farm demonstration and experimental work, field crop competitions, cow testing associations, poultry demonstration stations, co-operative variety tests	18,000 00
3.	Horticultural demonstration stations, experimental work in vegetable growing and greenhouse work, pathological and entomological investigation work, demonstration and experimental work in various cultural practices in fruits and vegetables	8,500 00
4.	Boys' and Girls' field crop competitions, fairs, etc	2,000 00
5.	Bulletins, reports, circulars and miscellaneous printing	2,000 00
6.	Department of Education, towards agricultural instruction in Public, Normal and High Schools	15,000 00
7.	Contingencies and miscellaneous, not included in above items.	2,765 94
	Total	$ 58,265 94

The Department of Agriculture for British Columbia has adopted the policy of instruction through demonstrations as the best means of expending the grant placed at its disposal by the Dominion; and the major portion of the grant is devoted to such purposes.

For carrying out the work performed by the Department of Agriculture, the salaries and expenses of sixteen officials are paid wholly or in part from the grant. These comprise the following: A market commissioner, three veterinary inspectors, four assistant horticulturists, two assistant agriculturists, a plant pathologist, a silo demonstrator, soil and crop instructor, foul brood instructor, caretaker, egg-laying contest, and a caretaker of demonstration plots.

Farm Demonstration and Experimental Work.

Instructors and Inspectors salaries	$ 9,687 00
General disbursements and travelling	16,701 00

Demonstration Stations.

Twelve demonstration stations, varying in size from four to thirteen acres, are operated under an agreement with the owner of the land, who carries out the work under the direction and supervision of the Soils and Crops Division of the Live Stock Branch of the Department:—

District.	Crop.
Chilliwack	Fodder Crop Rotation.
Armstrong	"
Edgewood	"
Grand Forks	"
Rock Creek	"
Parksville	Demonstration station of 13 acres.
Hazelton	Mixed Crops.
Telkwa	"
Aldermere	"
Francois Lake	"
Ootsa Lake	"
Nechaco Valley	"

Alfalfa Plots.

The following alfalfa plots, consisting of one acre each, are operated in order to find out the suitability of different districts for growing this fodder crop, and the best varieties to be grown:—

District.	Location.
Courtenay	Courtenay.
Saltspring Island	Ganges Harbour.
Howe Sound	Gibson's Landing.
Rosehill	Rosehill.
Nakusp	Nakusp.
Burton	Burton.
Edgewood	Edgewood.
Sidley	Bridesville.
Rock Creek	Rock Creek.

Very valuable results have been secured from the operation of these demonstrations and alfalfa plots. The work of the Department in this connection is much appreciated by all farmers in the districts in which these plots have been placed. It is actual demonstration work. The farmer does the work under the Department's supervision, thus leading him to adopt correct principles of farming. Valuable information has also been secured as to the varieties of grain, fodder crops, fruits, etc., for the different districts. The principle of correct crop rotation has been encouraged amongst farmers, and generally the results accomplished by the operation of these plots are very encouraging to the Department.

Poultry Breeding Stations.

During the past fiscal year, twenty breeding pens of pure-bred fowls were sent out to the newer districts of the province, in order to get a good strain of poultry introduced. The pens consisted of twenty hens and two cockerels. They were supplied to reliable men who undertook to take charge of them according to directions from the Department, and to sell all the eggs from them to neighbouring farmers at a price not to exceed $1 a setting. The quality of the poultry in the different districts has been very much improved by this means.

Selected Seed Distribution.

Under this section, a comprehensive scheme of selected seed distribution has been undertaken through farmers' institutes. The seed ordered by each secretary is forwarded to him for distribution to members. Freight charges are paid by the Department. Oats, wheat, alfalfa, corn, and mangel seeds were distributed by this method.

The Department states that "one has only to travel through the different parts of the province to see the splendid results that have been accomplished by this work. Not only has the acreage in crop been increased materially, but the yield per acre has shown a very marked increase since we started this work."

Egg-Laying Contest.

An international egg-laying contest has been held in Victoria for the last four years, and is operated under this section. Splendid records of egg production have been made each year, and valuable information afforded to poultrymen as to proper balanced feeding rations and care of poultry. There is a constant stream of visitors to this contest, who are eager to obtain all information from the man in charge. The cost of carrying on this egg-laying contest is trifling, as the sale of eggs not only pays for all the feed used, but also practically pays the salary of the man in charge of the contest. The money received from sale of eggs is refunded to this section of the grant.

Cow-Testing Associations.

This is regarded as one of the most valuable lines of work recently introduced by the Department. The following cow-testing associations have been formed, and are doing very valuable work amongst dairymen:—

Location.	No. of Cows Tested.
Chilliwack	515
Sardis and Rosedale	489
Comox	450
Langley-Surrey	436
Delta	400
Total	2,290

By means of these cow-testing associations, farmers are rapidly being educated as to the advisability of keeping a careful record of performance of their cows, by weighing the milk and using the Babcock test. Since these associations were started, the milk production has very materially increased, owing to the fact that dairymen have discarded unprofitable cows. The principle of breeding from selection, feeding a balanced ration, and the proper housing, care and treatment of cows are all encouraged.

Field Crop Competitions.

These were first organized to induce farmers to adopt more correct methods of crop production. Prize money was offered as the inducement, and was paid to those who had studied such methods and applied them most successfully.

The object of field crop competitions is to induce farmers to attempt better and greater production. They have served and are serving the purpose for which they were intended, and there is an annual increase in the number of competitions held and in the number of institute members taking part, as is shown by the following table:—

Year.	No. of Institutes Competing.	No. of Competitions.	No. of Competitors.
1912	14	20	...
1913	21	31	305
1914	49	80	587
1915	59	101	812

Silo Demonstrations.

By means of the Federal grant, the department has during the past two years been enabled to undertake a strong campaign of instruction in the growing of ensilage crops, and the use of the silo. Blue-prints and specifications of a cheap but effective stave silo are supplied free of cost to all farmers who contemplate building. The department undertakes to erect the first silo in any Farmers' Institute district, and later in the year to fill it, and has been kept busy during the last three years erecting silos for farmers in different districts in which they had not been started. As a result of this work, there are now approximately three hundred silos in the province, when four years ago there were probably not a dozen. In this time the acreage devoted to the growing of corn has increased tenfold. In the opinion of the department the value of this work cannot be overestimated, as the province is particularly well adapted for growing soiling and fodder crops and for the use of the silo. The increase in milk sold and butter made during the last few years is to a large extent due to the use of silos by farmers.

Clover and Alfalfa.

Very large sums of money are yearly sent out of the province for clover and alfalfa seed when farmers can produce the highest quality of seed at home. In order to encourage farmers to grow their own seeds, the department purchased a clover and alfalfa huller, and this year will be threshing approximately two hundred acres of these crops for different farmers, charging them a fair price for the work. The quality of the seed grown, owing to favourable climatic and soil conditions in British Columbia, is far superior to that imported from other countries.

Seed Fairs.

Annual seed fairs are now being held. Arrangements for the present year provide for these fairs being held at New Westminster, which will take in all the country of the Lower Mainland and Vancouver Island; Armstrong, which will serve the country of the Okanagan, Similkameen, and Boundary; and Kamloops which will take in the Thompson Valley, Shuswap and Arrow Lakes districts. Suitable prizes are awarded at these seed fairs, and the other expenses in connection therewith paid out of this section of the federal grant.

Markets Commissioner.

A Coast Markets Commissioner, with office at Vancouver, has been appointed with the object of assisting British Columbia producers to secure the best markets by furnishing them with information with regard to marketing conditions, prices, correct methods of grading and packing produce. Full weekly reports are sent to all producers, giving information as to prices, demand for produce, etc. Most excellent results have been obtained from this work, and many thousands of dollars, it is stated, have been saved to farmers and fruit growers through the activities of this branch. The salary and expenses of the Commissioner, R. C. Abbott, and the expenses of his office are defrayed by the grant.

Horticultural Work.

Salaries and General Disbursements, $8,501.

Three demonstration and experimental plots in agriculture and horticulture are being conducted, namely, at Terrace (Skeena River), Bella Coola, and Lawn Hill (Graham Island). These plots are five acres in extent, and are devoted to tree fruits, small fruits, vegetables, grain and forage crops. Different varieties are tested out, and experimental work in cultural methods, fertilization, spraying, and pruning, is carried on. These plots have proved of great service to the farmers and fruit growers in the localities in which they are established, and are much appreciated by them.

The Northern Okanagan Small Fruit and Vegetable Experimental Station is under the direction of Mr. J. L. Hilborn, whose property at Summerland was placed at the disposal of the department for the purpose, as described in last year's report. Mr. Hilborn's experience in Ontario proved of great value. Mr. Hilborn devotes all his time to advising growers, with the result that many have taken up this phase of work with success.

By means of the grant, two laboratories have been equipped with the necessary appliances and materials for conducting exhaustive investigation and research work in plant diseases and pests, and as to their control and eradication. An assistant plant pathologist has been appointed, and the interests of fruit growers have been well served by the experimental and research work carried out by means of these laboratories.

Provincial horticulturists in their respective districts have also carried out a considerable amount of experimental and investigation work, in pruning, spraying, fertilizing, irrigating, and cultural methods. The expenditure incidental to work of this nature has been met by the grant.

Boys' and Girls' Competitions.

Sixteen clubs for boys and girls were organized in the spring of 1916, with the object of creating an interest in the farm through the medium of competitions. Any boy or girl, from 10 to 17 years inclusive, is eligible for membership. Twenty competitions were held, ten in potato-growing, eight in poultry-raising, and two in pig-raising. Although only recently inaugurated, a great deal of interest is being taken in the movement. In most instances the children obtain very good results—better than those secured by their elders—owing to the fact that they are eager to follow directions given. When good results follow, the parents themselves are interested. The cost of the undertaking is met from the grant, but the charges do not appear in the accounts for the past financial year.

Dominion Grant Appreciated.

In commenting upon the work performed, the Deputy Minister of Agriculture, Mr. Wm. E. Scott, states: "By means of the grant we have been enabled to carry on to a much fuller extent than would be possible if we only had our provincial appropriations on which to rely, the most valuable lines of educative and demonstration work. This work is giving a great stimulus to agriculture, and is teaching the farmer how, by the adoption and application of correct principles of farming, he can increase his production from the land, and improve the quality of the stock, and generally, make a greater success of his farming operations."

Agricultural Instruction in Schools ($15,000).

During the past year substantial progress has been made in all lines of work included in the programme of agricultural education. The response of the teachers to the call of the Education Department to attend the summer school of 1915 was even more marked than in the previous year. Of the one hundred and seventy-one teachers who took the preliminary course in rural science in 1914, some seventy-seven returned for the advanced course in 1915, and in addition to these there were one hundred and eighty-three entered for the preliminary course. Altogether three hundred and fifty-nine teachers have taken this summer course in rural science. On account of the unusual conditions now existing in Canada, it was decided not to hold a summer school in 1916, but in all probability these courses for teachers will be continued even on a more extended scale in 1917.

The interest that is being aroused amongst school trustees and people generally throughout the province in agricultural education is very gratifying. The rapid increase in school gardens as an aid in the teaching of agriculture goes to show this. In 1914 there were but few school gardens in the province that could be officially recognized—probably less than half a dozen. In 1915 departmental grants were paid to eighty schools as having gardens up to the standard recognized by the department, and for the present year, 1916, the number will be more than doubled. In addition to this, some twenty-five or thirty teachers have undertaken home garden projects with their pupils. Special grants are made to school boards as well as to teachers undertaking to carry on home and school gardens.

School trustees are also taking a greater interest in the general improvement of school grounds. In most parts of the province good grounds for modern school requirements necessitate a large outlay for clearing and levelling, not to mention fencing, planting and beautifying. The assistance offered by the department to school boards towards the carrying out of an approved plan of grounds improvement has been greatly appreciated. During the past year thirty school grounds have been planned and are being rapidly improved. School boards are giving more attention to the choosing of good school sites with sufficient room for all school purposes, including school gardens and outdoor sports, than heretofore. School grounds have been supplied with shade and ornamental trees, flowering shrubs and herbaceous perennial flowers from the provincial schools' nursery.

The teaching of agriculture has been introduced in one of the high schools of the province—Chilliwack. It has been made an optional subject and for students taking it the study of foreign languages has been made optional on certain conditions and may be carried as a bonus subject. Arrangements have already been made to extend the work, and four other high schools will be offering two-year courses in agriculture when the schools open in September. It is hoped that within a few years all of the high schools of the province that are established in agricultural districts will be offering courses in agriculture.

Instruction in agriculture is to be given in these high schools by specialists only. These men, who must be graduates in agriculture, are being carefully selected. In addition to their work as teachers in the high school, they have supervision of the rural science work of the public schools of the district. They make regular visits to these adjacent rural schools, giving instruction to the pupils in school gardening, as well as in other branches of agriculture, and assisting the teachers generally in carrying out a suitable line of work. During the winter of 1915-16, the District Supervisor at Chilliwack organized an extension class for young men not in attendance at school. Ten young men attended the classes regularly two half-days per week during the months of November, December, January and February. One evening per week was also arranged which partook of the nature of an agricultural club meeting or conference. Lectures by outside men were given, debates and discussions organized, etc. It has been arranged to continue this branch of the district work, although the great majority of the young men have joined the colours, and we do not look for a very large attendance this year. An attempt has been made to suit the work carried on in the extension classes to the particular needs and interests of these young men, and in all classes the work is conducted in the most practical manner possible.

In the regular high school classes, girls as well as boys are included. It is desired that those young people who are looking towards the teaching profession should avail themselves of this instruction in agriculture, as they will be thereby the better able to give instruction in the subject in their own schools later on.

APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

(A)—Officers, regularly employed, whose salaries are paid wholly from the Agricultural Instruction grant:

Director Elementary Agricultural Education, J. W. Gibson, M.A., Victoria.
District Supervisor Agricultural Education, J. C. Readey, B.S.A., Chilliwack.
District Supervisor Agricultural Instruction, E. L. Small, B.S.A., Cloverdale.
District Supervisor Agricultural Instruction, J. E. Britton, B.S.A., Armstrong.
Assistant Plant Pathologist, M. H. Ruhmann, Vernon.
Silo Operator, J. Ferris, Victoria.
Assistant Horticulturist, E. C. Hunt, Grand Forks.
Caretaker, Egg-laying Contest, W. H. Stroyan, Victoria.
District Agriculturist, Geo. C. Hay, B.S.A., Telkwa.
District Agriculturist, J. H. McCulloch, B.S.A., Quesnel.
Soil and Crop Instructor, E. W. Hogan, B.S.A., Victoria.
Acting Asst. Horticulturist, A. R. Neale, B.S.A., Prince Rupert.
Coast Markets Commissioner, R. C. Abbott, Vancouver.
Editor, Publications Branch, Roy McLennan, Victoria.

(B)—Officers, regularly employed, whose salaries are paid partly from the Agricultural Instruction grant:

Cow Tester, G. H. Thornbery, Courtenay.
Cow Tester, E. Rive, Ladner.
Cow Tester, J. B. Watson, Sardis.
Cow Tester, D. James, Cloverdale.

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BRITISH COLUMBIA.

Balance of Grant of 1914-15.

Expenditure for the year ended March 31, 1916.

Number.	Classification.	Balance on hand April 1, 1915.	Expenditure to March 31, 1916.	Balance Unexpended Mar. 31, 1916	Balance Overexpended.
		$ cts.	$ cts.	$ cts.	$ cts.
1	Demonstration and Experimental Plots.	118 89	110 73	8 16	
2	Poultry Demonstration Stations	8 97	8 00	97	
3	Children's Crop Competitions				
4	Cow-testing Associations	2,500 02	2,079 84	420 18	
5	Horticultural Demonstrations	1,348 10	1,347 91	19	
6	Vegetable Experiments	21 45	12 40	9 05	
7	Insect and Plant Diseases Investigations	500 00	160 22	339 78	
8	Fruit Packing	1,000 00	215 00	785 00	
9	Agricultural Instructors				
10	Printing and Preparing Bulletins	5 34	510 10		504 76
11	Weed Suppression	1 68		1 68	
12	*Agricultural Instruction in Schools				
13	Miscellaneous	753 56	745 56	8 00	
		6,258 01	5,189 76	1,573 01	504 76

Net balance of $1,068.25 transferred to Section 5, "Printing and Preparing Bulletins" 1915-16 grant, as authorized by Minister, thus closing the account.

*In the previous statement a balance of $3,386.40 was incorrectly given, under "Agricultural Instruction in Schools," the expenditure of the total grant of $15,000, being fully accounted for in the details appearing on Page 105 of the Report of 1914-15.

1. Demonstration and Experimental Plots.

Balance April 1, 1915	$ 118 89	
Expended to March 31, 1916		$ 110 73
Balance March 31, 1916		$ 8 16
	$ 118 89	$ 118 89
Salaries—		
R. J. Ferris, silo demonstrator	$ 75 00	
F. Goldie, cure demonstration plot	40 00	
W. Newton, instructor soil and crops	120 00	
" " expenses	77 3[illegible]	
S. F. Dunlop, Agriculturist, expense	103 [illegible]	
	$ [illegible]	
Labour and materials, demonstration plots	$ 219 46	
Implements	209 [illegible]	
		[illegible]
Seed distribution		[illegible]
Silo work		[illegible]
Crop competitions		[illegible]
Alfalfa cultures		[illegible]
		$ [illegible]
Less seed grain refunds		[illegible]
		$ 110 73

2. Poultry Demonstrations.

Balance April 1, 1915	$ 8 97	
Expended to March 31, 1916	.....	$ 8 00
Balance March 31, 1916	.....	97
	$ 8 97	$ 8 97
Advertising Egg Contest		$ 8 00

4. Cow-Testing Work.

Balance April 1, 1915	$ 2,500 02	
Expended to March 31, 1916	.....	$ 2,079 84
Balance March 31, 1916	.....	420 18
	$ 2,500 02	$ 2,500 02
Salaries, sundry persons, cow-testers		$ 1,836 00
Travelling expenses, supplies, etc.		243 84
		$ 2,079 84

5. Horticultural Demonstrations.

Balance April 1, 1915	$ 1,348 10	
Expended to March 31, 1916	.....	$ 1,347 91
Balance March 31, 1916	.....	19
	$ 1,348 10	$ 1,348 10
Salaries, Caretakers Demonstration Plots—		
S. LeC. Grant	$ 300 00	
T. H. Hughes	200 00	
E. C. Hunt	200 00	
A. Richardson	200 00	
		$ 900 00
Labour, materials and supplies		170 71
Travelling expenses		277 20
		$ 1,347 91

6. Vegetable Growing.

Balance April 1, 1915	$ 21 45	
Expended to March 31, 1916	.....	$ 12 40
Balance March 31, 1916	.....	9 05
	$ 21 45	$ 21 45
Seed, fertilizer and labour demonstration plot		$ 12 40

7. Insect and Plant Diseases—Investigation Work.

Balance April 1, 1915	$ 500 00	
Expended to March 31, 1916	.....	$ 160 22
Balance March 31, 1916	.....	339 78
Total	$ 500 00	$ 500 00
Chemicals, supplies, duty		$ 160 22

8. Fruit Packing.

Balance April 1, 1915	$ 1,000 00	
Expended to March 31, 1916	.....	$ 215 00
Balance March 31, 1916	.....	785 00
Total	$ 1,000 00	$ 1,000 00
Prizes, apple-packing contests, and packed fruit dispays		$ 215 10

10. Printing and Preparing Bulletins.

Balance April 1, 1915	$ 5 34	
Expended to March 31, 1916	.....	$ 510 10
Balance overexpended March 31, 1916	504 76	
Total	$ 510 00	$ 510 10
Addressing machine		$ 25 00
Wool circular		7 50
Services mailing		11 00
Printing Agricultural Journal		466 60
Total		$ 510 10

13. Miscellaneous.

Balance April 1, 1915	$ 753 56	
Expended to March 31, 1916	.....	$ 745 56
Balance March 31, 1916	.....	8 00
Total	$ 753 56	$ 753 56
B. Livingston, travelling expenses, Women's Institute lectures		$ 593 81
Seed distribution		103 50
Weed suppression		21 80
Incidentals		22 25
Total		$ 745 56

BRITISH COLUMBIA.

Grant, 1915-16, $58,265.94

Statement for the Year ended March 31, 1916

Number.	Classification.	Grant 1915-16.	Grant as amended	Balances on hand Apr. 1, 1915.	Expenditure to Mar. 31, 1916.	Balance Unexpended Mar. 31, 1916.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1	Instructors and Inspectors	10,000 00	12,000 00		9,975 72	2,024 28
2	Demonstration and Experimental Work	18,000 00	18,000 00		14,213 77	3,786 23
3	Horticultural demonstrations	8,000 00	8,000 00		6,911 04	1,088 96
4	Boys' and Girls' Field Crop Competitions	2,000 00				
5	Printing and Preparing Bulletins	2,000 00	2,000 00	1,000 00	1,187 44	1,812 56
6	Agricultural Instruction in Schools	15,000 00	15,000 00		15,000 00	
7	Miscellaneous	2,765 94	2,765 94		2,765 52	0 42
	Total	58,265 94	58,265 94	1,000 00	49,703 49	9,562 45

1. Instructors and Inspectors.

Grant 1915-16	$ 12,000 00	
Expended to March 31, 1916	.....	$ 9,975 72
Balance March 31, 1916	.....	2,024 28
Total	$ 12,000 00	$ 12,000 00
Salaries—		
R. C. Abbott, Markets Commissioner		$ 1,175 00
W. T. Brookes, Veterinary Inspector		615 00
L. F. Burrows, Assistant Horticulturist		70 95
D. F. Dunlop, "		575 00
R. J. Ferris, silo demonstrator		375 00
F. L. Goldman, Assistant Horticulturist		83 85
F. Goldie, caretaker demonstration plot		80 00
E. M. Howitt, Assistant Horticulturist		600 00
E. C. Hunt, "		500 00
D. H. McKay, Veterinary Inspector		600 00
W. Newton, Instructor, soil and crop		480 00
M. H. Ruhmann, Asst. Plant Pathologist		700 00
R. L. Ramsay, Assistant Agriculturist		125 00
W. J. Sheppard, Foul Brood Inspector		125 00
M. Sparrow, Veterinary Inspector		600 00
W. H. Stroyan, caretaker, egg-laying contest		375 00
		$ 7,079 80
Travelling and office expenses of above		2,895 92
Total		$ 9,975 72

A. H. Howitt, B.S.A., acts as Assistant to the Horticulturist at Prince Rupert, and gives instruction to pupils of public and high schools in agriculture and horticulture.

E. C. Hunt, B.Sc., has charge of the Boundary district, besides taking charge of the campaign for fire blight control; he conducted primary schools, gave orchard demonstrations, lectured and judged at fairs. The most important feature of this work is the orchard-to-orchard inspection.

Three veterinary inspectors were employed for about four months in improving conditions on dairy farms.

M. H. Ruhmann is in charge of the Pathological and Entomological Laboratory at Vernon. The laboratory does a great deal of identification work. A considerable portion of his time is devoted to field study for the benefit of the orchard industry, lecturing, etc.

R. L. Ramsay acted at District Agriculturist at Telkwa, being succeeded by D. F. Dunlop.

2. Demonstration and Experimental Work.

Grant, 1915-16	$ 18,000 00	
Expended to March 31, 1916	.....	$ 14,213 77
Balance March 31, 1916	.....	3,786 23
Total	$ 18,000 00	$ 18,000 00
Poultry Work—		
Breeders' premium for services	$ 305 00	
Prizes, Egg contests	376 75	
Supplies and expenses contests	596 97	
Poultry for breeding stations	1,124 22	
		$ 2,402 94
Silo demonstrations—		
Equipment, supplies and expenses		$ 1,624 27
Demonstration Plots—		
Labour and supplies	$ 2,962 27	
Rent	483 00	
Implements	105 50	
		$ 3,550 77

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2. Demonstration and Experimental Work—*Concluded.*

Farmers' Institute Crop Competitions—		
Prizes	$ 1,790 00	
Judges' expenses	1,123 80	
Boys' and Girls' competitions	105 20	
		$ 3,019 00
Seed Grain and distribution		3,028 44
Alfalfa cultures		122 50
Dairy division		31[illegible] 05
Apparatus and supplies, soil analysis		343 47
Travelling expenses—		
S. F. Dunlop, District Agriculturist	$ 420 87	
C. H. Gravely	196 00	
D. H. McKay	90 50	
W. Newton, Instructor, soil and crop	602 25	
M. Sparrow	51 00	
		$ 1,370 [illegible]
Incidentals		291 81
Total		$ 16,064 42
Less seed grain refunds		4,457 [illegible]
		$ 11,606 77
Salaries—		
R. J. Ferris, Silo Demonstrator	$ 450 00	
F. Goldie, Caretaker Demonstration Plot	240 00	
W. H. Stroyan, Caretaker, Egg-laying contest	525 00	
W. Newton, soils and crops	600 00	
Cow-testers	240 00	
S. F. Dunlop, Assistant Agriculturist	552 00	
		$ 2,607 00
Total		$ 14,213 77

Cow-testers.—Assistance is given to cow-testing associations by paying a portion of the salaries of cow-testers.

3. Horticultural Demonstration Plots.

Grant, 1915-16	$ 8,500 00	
Expended to March 31, 1916	.....	$ 6,[illegible] 64
Balance March 31, 1916	.....	1,974 36
Total	$ 8,500 00	$ 8,500 00
Labour, supplies, incidentals, services of superintendents and travelling expenses of Assistant Horticulturists, Experimental Plots		$ 2,[illegible] 28
J. L. Hilborn, in charge of Summerland station for small fruits and vegetables		[illegible] 00
		$ 3,[illegible] 28
Salaries—		
L. E. Burrows, Assistant Horticulturist	$ [illegible] 66	
F. L. Goodman, "	419 22	
S. LeC. Grant, Caretaker, Demonstration Plot	[illegible] 00	
T. H. Hughes, " "	[illegible] 65	
C. E. Hunt, Asst. Horticulturist, (See Section 1)	[illegible] 00	
A. Richardson, Plot Caretaker	480 00	
M. H. Ruhmann, Plant Pathologist (See Section 1)	[illegible] 26	
		$ 1,[illegible] 93
Total		$ 8,[illegible] 21

The entire cost of operating three experimental plots was borne from the fund. On account of these plots, salaries of $1,800 were paid to the three superintendents and a total of $1,025.11 was expended in the purchase of seeds, fertilizers, necessary implements, the erection of fences and such sheds as were necessary, and the payment

of team and hand labour necessary for the operation of the plots other than the monthly wages to the managers. These plots at Terrace, Lawn Hill and Bella Coola, serve three typically different areas and cover general experimental work in all kinds of grain, fodder and vegetable crops, questions of fertilizers and various amendments to the soils of those districts, small fruit experiments, tree-fruit experimental work, etc.

L. F. Burrows, B.S.A., was employed for six months in operating demonstration orchards, conducting fertilizer, spraying and other similar experiments in fruits and vegetables, judging at fairs, and in giving advice to orchardists.

L. F. Goodman, B.S.A., was employed during the summer months on similar work.

5. Printing and Preparing Bulletins.

Grant, 1915-16	$ 2,000 00	
Unexpended balances, 1914-15, Sections Nos. 1, 2, 4, 5, 6, 7, 8, 10, 11, 13	1,068 25	
Expended to March 31, 1916	.....	$ 1,187 44
Balance March 31, 1916	.....	1,880 81
Total	$ 3,068 25	$ 3,068 25

Women's Institute Publications	$ 530 30
Postage Agricultural Journal	175 00
Egg-Contest Report	163 90
Potato Receipt Book	187 40
Miscellaneous	130 84
Total	$ 1,187 44

Various reports, circulars of instruction, etc., dealing with work carried on under the grant, have been paid for out of this section.

Department of Education.

Part of expenses in connection with the Summer school for teachers in Rural Science	$ 4,468 95
Grants to School Boards on account of School Gardening	4,052 11
Part of expenses in connection with the Summer school for teachers in Domestic Science	1,987 70
Grants to teachers of Rural Science	1,764 00
Salary of District Supervisor of Agricultural Instruction (11 months)	1,650 00
Travelling and office expenses of Director of Elementary Agricultural Education	1,077 24
Total	$ 15,000 00

7. Miscellaneous.

Grant, 1915-16	$ 2,765 94	
Expended to March 31, 1916	.....	$ 2,765 52
Balance March 31, 1916	.....	0 42
Total	$ 2,765 94	$ 2,765 94

Women's Institutes—		
Women's Inst. Secretaries, salaries	$ 1,310 45	
Mrs. Johnstone, Advisory Board, services and expenses	33 35	
Mrs. Lipsett, Advisory Board, services and expenses	33 55	
Miss E. H. Jones, Lecturer, services and expenses	109 30	
Miss F. Steed, " "	240 30	
M. J. Kennedy, " "	131 67	
Miss B. Livingstone, " "	304 00	
Mrs. M. S. Davies, Sec., Advisory Board, services and expenses	120 00	
Incidentals	36 05	
		$ 2,318 67

7. MISCELLANEOUS—*Concluded.*

Dr. S. Ransom, salary and expenses, cattle investigation	105 25
Seed Grain distribution	81 25
Poultry for stations	60 80
Weed suppression	70 50
Prizes Boys' and Girls' competitions	42 50
Supplies, printing, etc	86 55
Total	$ 2,765 52

Payments in connection with women's institute work, grain distribution, poultry breeding stations, noxious weeds, pathological work, etc., have been made from this section. The principal expenditures incurred were with respect to women's institutes, the provincial appropriation for this purpose having been fully expended towards the end of last year, and in order that the work might be carried on till yearly appropriation was again available, permission was secured from the Dominion Minister of Agriculture to utilize part of the grant for this purpose.

AGRICULTURAL AID GRANT, 1912.

STATEMENT FROM JUNE 17, 1915, TO MARCH 31, 1916.

Number.	Classification.	Balance on hand June 17, 1915.	Expended to Mar. 31, 1916.	Balance carried forward.
		$ cts.	$ cts.	$ cts.
1	Women's Institutes	5 95	417 88	411 93 (over)
2	Fruit Packing	10 00		10 00
3	Purchase Dairy Cattle			
4	Demonstrations in Crops, live stock and pure bred stock purchase	2,044 13	2,043 20	0 93
5	Importation of Pure-bred stock	2,292 40	1,286 68	1,005 72
6	Miscellaneous	1 91		1 91
	Total	4,354 45	3,747 76	606 69

BRITISH COLUMBIA.

COMPARATIVE STATEMENT OF EXPENDITURE OF PROVINCIAL FUNDS FOR AGRICULTURAL PURPOSES FOR THE YEARS 1913, 1914 AND 1915.

Service.	1913 to March 31.	1914 to March 31.	1915 to March 31.	1916 to March 31.	1916-17 to March 31. (Estimated).
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Salaries—Agricultural Branch, Dept. of Finance and Agriculture	37,851 78	53,755 12	67,288 62	62,919 70	73,496 00
Agricultural Associations	88,823 65	67,311 11	41,041 45	16,709 33	30,000 00
Board of Horticulture	2,556 65	1,078 25	217 70	318 85	500 00
Stock Breeders' Associations	4,633 42	2,717 68	1,278 04		2,500 00
Flockmasters' Association	250 00	250 00	250 00	1,757 85	250 00
Dairymen's Association	3,062 51	2,999 55	2,096 46	2,564 78	2,500 00
Department of Agriculture—Grants to Students; Compensation for Cattle; Services and Expenses, outside; Miscellaneous, Weed Suppression	30,160 87	24,985 50	104,021 88	77,336 31	67,000 00
Panama Exposition				7,322 92	
Fruit Work—					
Fruit Cooling and Storage	871 01	2,992 51			
Fruit Exhibitions	43,110 28	36,059 28			
Fruit Packing Schools	4,567 49	4,043 15			
Inspection Nursery Stock	11,681 58	41,216 74	68,385 25	36,649 76	43,750 00
Fruit Growers' Associations	4,211 42	6,251 66			
Demonstration Orchards	18,071 23	2,242 13			
Farmers' Institutes and Importation of Pure Bred Stock in 1913	58,577 65	17,575 75	5,704 60	18,108 45	20,000 00
Women's Institutes	4,640 01		4,993 85		7,500 00
Poultry Association Grant	2,934 64	3,870 86	1,879 91	5,213 60	2,500 00
Poultry Shows	3,100 00	4,000 00	4,000 00		
Totals	318,103 59	290,789 60	303,107 26	228,901 55	249,996 00

NOVA SCOTIA.

Agreement, 1915-16.

1. Agricultural Colleges and Agricultural Schools—		
(a) Capital expenditure to pay interest and sinking fund on cost of construction of and furnishing for science building	$ 7,500 00	
(b) Salaries and maintenance	20,000 00	
		$ 27,500 00
2. Instructors, Directors, Superintendents and District Representatives—		
Salaries and expenses		7,500 00
3. Instruction and Demonstration—		
Dairying	$ 3,500 00	
Poultry	1,600 00	
Bee-keeping	400 00	
Soils (including drainage and field crops)	2,300 00	
Horticultural and Entomological investigation	7,500 00	
Fruit growing	1,200 00	
Short courses	3,000 00	
		19,500 00
4. Women's work (Women's Institutes, Home Makers' Clubs, Domestic Science, etc.)		3,000 00
5. Bulletins, reports, circulars and miscellaneous printing		500 00
6. Instruction in Public and High Schools and in Normal Schools in Agriculture, Nature Study, training of teachers and school gardens		10,500 00
7. Contingencies and miscellaneous		581 87
Total		$ 69,581 87

New Science Building.

The Science building, at the Nova Scotia Agricultural College, completed in the autumn of 1915, was formally opened on January 11, 1916, by the late Dr. C. C. James, Dominion Commissioner of Agricultural Instruction.

The building is intended to provide accommodation for instruction and investigation in the various departments of science and in home economics, proper facilities for which have hitherto been lacking.

The building is a handsome rustic brick structure of 125 x 50 feet, three stories high, and set high on the central knoll of the college campus. The basement, or what is really the ground floor, contains a general chemical laboratory and a soil-chemistry laboratory, each capable of accommodating fifty students.

On the first floor are three research laboratories in entomological and plant disease work, and a class room capable of seating 100 students. The second floor is devoted wholly to home economics. Here is provided a fine assembly hall, equipped with movable furniture, to serve as a meeting place for women's institute conventions, and as a room for instruction in sewing, millinery and other subjects related to women's work. Attached to it is a library and reading room. There is also a spacious modern laboratory, equipped with desks, ranges and other apparatus, for study and demonstration. Adjoining this is a laundry with modern fixtures.

The heating and ventilating systems are of the most modern type. The boiler-room is placed below the basement, thus making it in reality a full three-story building. The entire interior finish is of quartered oak. The building is in every sense satisfactory, is an ornament to the college premises, and a splendid addition to the college equipment.

Under the agreement of 1914-15, arrangements were made to finance the undertaking, whereby it was provided that the province should borrow the necessary money and devote a portion of the Dominion grant each year to the payment of interest and the establishment of a sinking fund, at a rate that would clear the account in twenty years. The cost of the building to date has been approximately $115,000.

The account to March 31, 1916, stands as follows:—

Interest charges, 1914-15	$ 625 44
" 1915-16	4,471 69
Sinking fund, 1915-16	2,364 62
Total	$ 7,461 75

The previous additions to the buildings at the college, made possible by the Dominion grants, were: 1912, main building extension; 1913, horticultural building and greenhouses. The following are the charges to date against building account:—

1912	$ 31,288 45
1913-14 and 1914-15	13,686 09
1915-16	6,836 31
Total	$ 51,810 85

Agricultural College Salaries and Maintenance, $19,411.

The contribution from the grant in 1915-16 to salaries and maintenance at the Agricultural College amounted to $19,411.46. The expenditure under this head is not presented in detail except in the Provincial Public Accounts.

It should be pointed out that since aid was first given in 1915, the provincial appropriations to the institution have not been increased, and that, therefore, whatever progress has been made at the institution since that date has been due to the aid received from the grant. Apart from new buildings, the main increases have been for increased laboratory facilities, additions to staff, and a decided addition to the amount of original investigation work carried on. The members of the college staff devote much time to extension work, in addition to their regular duties. The funds provided by the grant have made it possible, not only to add to the staff, but to secure and hold the services of the best men obtainable.

The expenditure at the institution during the year charged against the grant was $26,247.77, out of an expenditure for all purposes of $66,793.65 so charged.

Beneficial Effects of the Grant.

In this connection, Mr. M. Cumming, principal of the college and secretary for agriculture, states:—

"Perhaps to no other institution in Canada has the grant under the Agricultural Instruction Act meant more than to the college at Truro. Since the first grant was given in 1912, the staff has been materially increased and strengthened. The horticultural and science buildings and a substantial addition to the main building have all been erected. In fact, from a college with barely enough accommodation for its own province students, and with little laboratory facility for research, the college at Truro has grown into a full-fledged, well-equipped institution capable of accommodating for many years to come all the regular course students from the Maritime Provinces. Moreover, investigation work is now being carried on in fields and laboratories which promises its full fruition to the agriculture of the East. No doubt some of this development would have taken place had the Federal grant not been available, but the fact remains that the major part of the development has been financed from this fund."

INSTRUCTION AND DEMONSTRATION.

District Representatives, $6,980.

In one county, Antigonish, one permanent representative, Mr. Hugh MacPherson, has been appointed. In the four Cape Breton counties, Mr. H. S. Cunningham and three assistants are employed for the growing season, and give special attention to crop-growing demonstrations. A motor-car was provided to enable Mr. Cunningham to properly supervise the work. In Richmond county, Rev. Father Robitaille carried out demonstration work among the French-speaking residents.

A clover-huller was purchased and operated at several centres. This is said to be the first ever used in the province, and it has already been the means of stimulating clover-seed production. It will be operated in other counties in future seasons. The total cost of this service is charged to the grant.

Dairying, $3,519.

The expenditure on this service is supplementary to the provincial grant. It provides half the salary of the Provincial Dairy Superintendent, the salary of his assistant, their expenses and the expenses of those employed from time to time in helping to organize the business. The awards given at the Provincial Butter-making Competition and the expenses of the Provincial Dairy Convention are also charged.

The creamery output of the province shows a continuous increase, amounting since 1910 to nearly 500 per cent.

Poultry, $1,542.

The demonstration work carried on by the Provincial Superintendent with headquarters at the Agricultural College, was continued as in the year preceding. The appropriation has been used to meet the cost of establishing demonstration poultry houses in different districts, to supply settings of eggs to school children, and to provide for the expenses of the superintendent and others conducting meetings.

Bee-keeping, $373.

During the year a partial survey of the province was made with a view to ascertaining the prevalence of foul-brood with a view to obtaining legislation looking to the suppression of the disease. The work was of a preliminary character.

Soils, Drainage and Field Crops, $2,298.

Drainage and soil survey work was begun two years ago, part of the cost of the undertaking being charged to the grant. These charges included the salary of an assistant chemist, the services and expenses of those engaged in making drainage survey for farmers, the cost of concrete tile-making demonstrations and the cost of seeds, fertilizer and supplies used in co-operative experimental work.

The department agrees to demonstrate concrete tile-making to any group of farmers who propose manufacturing 20,000 or more tile. During 1915, 31,000 tile of all sizes were manufactured in Pictou county.

Entomological Investigation, $7,302.

This appropriation assists the province to meet the cost of the campaign against the Brown-tail moth and the San José scale, carried on under the Provincial Entomologist, Mr. W. H. Brittain. The scale has been almost eradicated and the moth kept well within bounds. Evidence goes to show that the province has been saved great loss because of the prompt and efficient work carried on in this regard.

The grant provides for the expenses of the Provincial Entomologist, the salary and expenses of his assistant, and of the chief inspector and fourteen assistants.

Fruit Growing, $974.

Demonstrations on orchard practice through the renovation of old orchards were continued as in previous years in those parts of the province where fruit growing is not specialized.

Short Courses: Demonstration, Buildings, $2,159; Lectures, $1,295.

Part of the appropriation was used to supplement moneys provided for agricultural buildings at Antigonish and Lawrencetown, suitable for short course and other work. Buildings of this kind have now been provided at Yarmouth, Bridgewater, Musquodoboit, Shubenacadie, Antigonish and Lawrencetown, at a total cost to the grant of $6,388.

The Lawrencetown building contains a demonstration theatre 40 by 60 feet, for live-stock judging and similar work, capable of seating 300. Also a class room seating over 100, a library and office. The class room is designed to accommodate courses in agriculture and domestic science. Surrounding the building are four acres of land, which will serve as a recreation ground, the whole to form a centre for a community development scheme. The cost including furniture was $3,200, which was made up as follows:—

County Council grant	$ 500 00
Private subscription	1,000 00
Agricultural Instruction Act grant	1,500 00
Total	$ 3,000 00

During the year, short courses were held at Yarmouth, Lawrencetown and Antigonish, with an attendance of 1,200 students in addition to the regular January short course at the Agricultural College, Truro, attended by over 300 students.

Women's Work, $2,862.

Work was continued along lines described in the report 1914-15. The number of institutes was increased from thirty-six to forty-four during the year. The total cost of this service is met by the grant.

For some years, short courses of two weeks' duration in domestic science and allied subjects have been conducted at the Agricultural College.

School Agriculture, $9,854.

This portion of the grant is expended by the Department of Education. It provides the salary of the Director of Rural Science, and of the Dean of Rural Science Training School, together with the expenses of the Summer School for Teachers, held at Truro, including bonuses and travelling expenses. Annually in the months of July and August this school is conducted jointly by the members of the Normal College and Agricultural College staffs. The course is attended by teachers who are seeking to qualify for nature science teaching in the schools of the province.

During the year, ninety-five teachers conducted school and home garden projects and received grants from this fund. Settings of eggs, garden seeds and exhibition prizes for children's exhibits were among the items charged. While school gardens have made no material advance, the number of home gardens cared for by school children increased from 700 in 1914 to 1,900 in 1915.

SESSIONAL PAPER No. 15c

APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

(A)—List of persons, regularly employed, whose salaries are paid wholly from the Agricultural Instruction grant:

County representative, H. McPherson, Antigonish County.

County Representative, H. S. Cunningham, Cape Breton Counties.

County Representative, H. B. Langille, Cape Breton and Richmond Counties.

County Representative, T. C. Munn, Inverness County.

County Representative, A. B. MacDonald, Guysborough County.

Entomological Field Work Superintendent, H. G. Payne, Department of Agriculture, Truro.

Assistant Provincial Entomologist, C. A. Good, Department of Agriculture, Truro.

Soil Analyst, J. G. Archibald, Department of Agriculture, Truro.

Women's Institute Superintendent, Miss Jennie A. Fraser, New Glasgow.

Director Rural Science, L. A. DeWolfe, Truro.

Dean Rural Science Schools, C. L. Moore, Halifax.

C. B. Gooderham, Apiary and Entomological Inspector.

Fruit and Vegetable Growing Instructor, W. N. Byers.

Fruit and Vegetable Growing Instructor, F. B. Kinsman.

(B)—List of persons receiving part salary from Federal grant:—

Dairy Superintendent, W. A. MacKay, Department of Agriculture, Truro.

Stenographer to Dairy Superintendent, Miss M. M. Caldwell, Truro.

Accountant, C. R. B. Bryan, Truro.

Professor of Agriculture, J. M. Trueman, Agricultural College, Truro.

Professor of Horticulture, P. J. Shaw, Agricultural College, Truro.

Professor of Zoology, W. H. Brittain, Agricultural College, Truro.

Professor of Botany, H. W. Smith, Agricultural College, Truro.

Professor of Chemistry, J. M. Scott, Normal College, Truro.

Professor of Physics, J. A. Benoit, Normal College, Truro.

Professor of Manual Training, F. G. Mathews, Normal College, Truro.

Principal E. C. Allen, Truro Academy.

Professor of Chemistry, L. C. Harlow, Agricultural College.

Entomological Inspector, J. P. Spittall, Department of Agriculture, Truro.

Entomological Inspector, W. W. Whitehead.

Entomological Inspector, L. G. Saunders, Department of Agriculture, Truro.

Entomological Inspector, C. F. U. Whitman, Department of Agriculture, Truro.

Entomological Inspector, D. Robichaud, Department of Agriculture, Truro.

Entomological Inspector, V. A. Chute, Department of Agriculture, Truro.

Entomological Inspector, R. M. Sanford.

NOVA SCOTIA.

GRANT, 1915-16, $68,001.87—STATEMENT FROM APRIL 1, 1915, TO MARCH 31, 1916.

No.	Classification.	Grant, 1915-16.	Balance on hand, April 1, '15.	Total.	Expended to Mar. 31, '16.	Balance Unexpended Mar. 31, '16.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1	Agricultural Colleges and Schools ($27,500)—					
	(a) Interest and Sinking Fund—Science Building	7,500 00	3,009 32	10,509 32	6,836 31	3,673 01
	(b) Salaries and Maintenance	20,000 00	4,059 28	24,059 28	24,059 28	
2	Instructors, Directors, etc—Salaries and Expenses	7,000 00		7,000 00	6,979 88	20 12
3	Instruction and Demonstration ($19,500)—					
	(a) Dairying	3,500 00	19 85	3,519 85	3,519 26	59
	(b) Poultry	1,600 00	8 47	1,608 47	1,541 97	66 50
	(c) Beekeeping	400 00		400 00	373 13	26 87
	(d) Soils	2,300 00	4 39	2,304 39	2,297 69	6 70
	(e) Horticultural and Entomological Investigation	7,500 00	62 30	7,562 30	7,562 30	
	(f) Fruit Growing	1,200 00		1,200 00	974 25	225 75
	(g) Short Courses	3,000 00	509 78	3,509 78	3,453 74	56 04
4	Women's Work	3,000 00	1,212 04	4,212 04	2,861 63	1,350 41
5	Bulletins, Printing, etc	500 00		500 00	499 72	28
6	Agriculture in Schools	10,000 00	826 87	10,826 87	9,854 46	972 41
7	Contingencies	501 87	134 70	636 57	627 85	8 72
	Total	68,001 87	9,847 00	77,848 87	71,441 47	6,407 40

DETAILS OF EXPENDITURE FROM APRIL 1, 1915, TO MARCH 31 1916.

1*a*. INTEREST AND SINKING FUND, SCIENCE BUILDING.

Grant 1915-16	$ 7,500 00	
Balance forward April 1, 1915	3,009 32	
Expended to March 31, 1916	.....	$ 6,836 31
Balance March 31, 1916	.....	3,673 01
Total	$ 10,509 32	$ 10,509 32
Eastern Trust Co., interest		$ 644 70
" paid on loan		2,364 62
" interest January 30, 1916		3,826 99
Total		$ 6,836 31

1*b*. SALARIES AND MAINTENANCE.

Grant 1915-16	$ 20,000 00	
Balance brought forward April 1, 1915	4,059 28	
Expended to March 31, 1916	.....	$ 24,059 28
	$ 24,059 28	$ 24,059 28

The Agricultural College expenditure is not presented in detail. The grant was expended for additional staff and services.

2. Instructors and Directors.

Grant, 1915-16		$ 7,000 00	
Expended to March 31, 1916		.....	$ 6,979 88
Balance unexpended March 31, 1916		.....	20 12
Total		$ 7,000 00	$ 7,000 00
District Representatives—	Salaries.	Expenses.	
H. S. Cunningham, Cape Breton	$ 1,113 37	$ 762 31	
H. McPherson, Antigonish	1,166 62	62 00	
Rev. J. E. Robitaille, Richmond	100 00	—	
Assistant Representatives—			
H. B. Langille	640 00	939 32	
J. M. McKenzie	166 65	260 05	
T. C. Munn	36 00	77 20	
C. M. Dickie	198 00	193 85	
	$ 3,420 64	$ 2,294 73	
			$ 5,715 37
Motor car and supplies			728 11
Clover huller			450 00
Freight and operating			75 15
Incidentals			11 25
Total			$ 6,979 88

3a. Dairying.

Grant, 1915-16		$ 3,500 00	
Balance April 1, 1915		19 85	
Expended to March 31, 1916		.....	$ 3,519 26
Balance March 31, 1916		.....	0 59
Total		$ 3,519 85	$ 3,519 85
	Salaries.	Expenses.	
W. A. McKay, Supt.	$ 699 97	$ 996 39	
J. W. Baird, Assistant	476 92	368 52	
J. R. Sutherland, Assistant	193 08	64 98	
Total	$ 1,369 97	$ 1,429 89	
			$ 2,799 86
Sundry persons, services and expenses			285 73
Awards, dairy competitions			235 00
Convention expenses			199 28
Incidentals			7 99
Total			$ 3,519 86

3b Poultry.

Grant, 1915-16		$ 1,000 00	
Balance April 1, 1915		5 47	
Expended to March 31, 1916		.....	$ 1,541 97
Balance unexpended March 31, 1916		.....	63 50
Total		$ 1,005 47	$ 1,005 47
J. P. Landry, Supt., expenses			$ 330 84
Material, demonstration houses			307 15
Poultry Convention			85 50
Eggs sent to schools			811 71
Express, crates, etc.			75 86
Total			$ 1,541 97

3c. Bee-keeping.

Grant, 1915-16	$ 400 00	
Expended to March 31, 1916	.....	$ 373 13
Balance unexpended March 31, 1916	.....	26 87
Total	$ 400 00	$ 400 00

C. F. W. Whitman, salary, $100. Expenses, $78.82	$ 178 82
C. B. Gooderham, expenses	13 76
M. Pettit, services, $25. Expenses, $49.80	74 80
W. H. Brittain, services	100 00
Supplies	5 75
Total	$ 373 13

4. Soils (Drainage and Field Crops).

Grant, 1915-16	$ 2,300 00	
Balance April 1, 1915	4 39	
Expended to March 31, 1916	.....	$ 2,297 69
Balance March 31, 1916	.....	6 70
Total	$ 2,304 39	$ 2,304 39

V. B. Robinson, Analyst, salary	$ 330 00
A. E. Murphy, drainage, salary $493.08; expenses, $167.34	660 42
A. C. Tattrie, salary, $75; expenses $86.40	161 40
T. C. Munn, services and expenses	26 90
Clarence Foster, services and expenses	52 50
L. C. Harlow, services and expenses	151 72
T. Hodgson, services and expenses	70 75
W. M. Blair, services	60 00
R. Robertson, services	18 00
B. H. Landell, expenses	26 20
J. R. Dickson, expenses	22 25
	$ 1,580 14
Seed, fertilizer, supplies and incidentals	717 55
Total	$ 2,297 69

3c. Horticultural and Entomological Investigation.

Grant, 1915-16	$ 7,500 00	
Balance April 1, 1915	62 30	
Expended to March 31, 1916	.....	$ 7,562 30
Total	$ 7,562 30	$ 7,562 30

	Salary.	Expenses.	
W. H. Brittain, Provincial Entomologist.	.....	$ 216 40	
C. A. Good, Assistant	$ 900 00	305 91	
C. B. Gooderham, Assistant	195 00	.....	
H. G. Payne, Chief Inspector	991 64	612 19	
14 Inspectors, salary (half) and exp.	2,156 27	1,760 34	
	$ 4,242 91	$ 2,894 84	$ 7,137 75
Supplies and incidentals			424 55
Total			$ 7,562 30

3f. Fruit Growing.

Grant, 1915-16	$ 1,200 00	
Expended to March 31, 1916	.....	$ 974 25
Balance March 31, 1916	.....	225 75
Total	$ 1,200 00	$ 1,200 00

3f. Fruit Growing—*Concluded.*

P. J. Shaw, expenses	$ 40 14
C. M. Dickie, salary, $195; expenses $155.25	350 25
Supplies and incidentals, including fertilizer and spraying materials	543 86
Total	$ 974 25

3g. Short Courses.

Grant, 1915-16	$ 3,000 00	
Balance April 1, 1915	509 78	
Expended to March 31, 1916	.....	$ 3,453 74
Balance March 31, 1916	.....	56 04
Total	$ 3,509 78	$ 3,509 78

Demonstration building, Antigonish	$ 588 38
" " Lawrencetown	1,400 00
" " Yarmouth	27 00
L. R. Fairn, Architect, fees	70 00
Furnishings, fittings, etc	133 15
	$ 2,158 53
Delegate expenses	594 00
Paul A. Boving, services $25; expenses $38.05	63 05
J. M. Trueman, expenses	38 41
H. B. Langille, services $60; expenses $71.12	131 12
H. L. Trueman, services $50; expenses, $58.91	108 91
J. S. Sinclair, services	120 00
Laurencetown electric light	76 32
Supplies and incidentals	103 40
Total	$ 3,473 74

10. Women's Institutes.

Grant, 1915-16	$ 3,000 00	
Balance April 1, 1915	1,212 04	
Expended to March 31, 1916	.....	$ 3,861 67
Balance March 31, 1916	.....	1,350 41
Total	$ 4,212 04	$ 4,212 04

Miss Jennie A. Fraser, Supt., salary $670; expenses $615.29	$ 1,285 29
Miss A. Redmond, salary $111, expenses, $128.61	239 61
Lecturers, services and expenses	468 28
Delegates' expenses, Truro Convention	456 00
Supplies and incidentals	463 71
Total	$ 2,861 89

5. Bulletins.

Grant, 1915-16	$ 300 00	
Expended to March 31, 1916		$ 495 77
Balance March 31, 1916		4 23
Total	$ 300 00	$ 500 00
Printing, Drainage, Dairy and Fruit Growers' Bulletins		$ 495 77

By special arrangement the Nova Scotia Fruit Growers' Association received an appropriation of $304.74 to enable them to publish a more complete report than heretofore. The balance was used to meet the cost of publishing popular bulletins on drainage and dairying.

6. Agriculture in Schools.

Grant, 1915-16	$ 10,000 00	
Balance April 1, 1915	826 87	
Expended to March 31, 1916	.....	$ 9,854 46
Balance March 31, 1916	.....	972 41
Total	$ 10,826 87	$ 10,826 87

L. A. DeWolfe, Director of Rural Science, salary $1,999.98; expenses, $582.27	$ 2,582 25
C. L. Moore, Dean Rural Science Training School, salary $1,000; expenses, $6.83	1,006 83
Eight instructors at Summer School	800 00
	$ 4,389 08
Books	213 58
Eggs for setting	145 50
Teachers' grants, (95 teachers)	1,942 50
Exhibition prizes	169 65
Students, travelling expenses	499 93
Bonuses to summer students	1,553 15
Supplies and miscellaneous	941 07
Total	$ 9,854 46

7. Contingencies.

Grant, 1915-16	$ 501 87	
Balance April 1, 1915	134 70	
Expended to March 31, 1916	.....	$ 627 85
Balance March 31, 1916	.....	8 72
Total	$ 636 57	$ 636 57

W. M. Blair, services	$ 160 00
C. R. B. Bryan, Accountant, services	300 00
Dr. P. C. Gauthier, expenses	30 00
Hugh McPherson, expenses	57 85
Postage	80 00
Total	$ 627 85

SESSIONAL PAPER No. 15c

NOVA SCOTIA.

COMPARATIVE STATEMENT OF EXPENDITURE OF PROVINCIAL FUNDS FOR AGRICULTURAL PURPOSES FOR THE YEARS 1913, 1914, 1915 AND 1916.

Service.	1913. To Sept. 30.	1914. To Sept. 30.	1915. To Sept. 30.	1916. To Sept. 30.
	$ cts.	$ cts.	$ cts.	$ cts.
General Agriculture—				
Department Salaries and Expenses	7,672 08	5,449 77	14,415 64	14,747 58
Assistance in Dairying	926 16	1,257 34	1,849 69	1,783 87
Entomological Inspection	3,582 27	2,744 15	2,938 06	3,910 51
Drainage	1,534 01	903 19	460 93	12 30
Exhibitions	12,457 84	18,222 13	10,484 08	9,540 17
Field Crop Competitions	870 18	939 18	936 07	1,022 71
Live Stock Improvement	898 57			
Meetings	621 84	69 77	406 50	89 40
Model Orchards	983 31	832 15	596 46	560 01
Printing and Advertising	134 35	306 81	212 60	490 92
Miscellaneous	397 06	228 20	448 45	616 58
Agricultural College	19,607 25	22,000 00	18,300 00	19,000 00
College Farm	14,317 41	14,000 00	14,700 00	15,000 00
Agricultural Societies	13,282 32	15,787 05	14,710 76	14,490 46
Fruit Growers and County Associations	1,032 75	1,150 00	1,200 00	1,450 00
Stallion Enrolment	84 75	518 91	142 23	210 95
Assistance to Poultry	100 35	565 13	423 20	432 65
Advertising Fruit in Great Britain				781 95
Total	78,502 50	84,973 78	82,164 66	84,309 95
Revenue	9,498 41	6,677 26	10,018 82	9,539 75
	69,004 09	78,296 52	72,145 84	74,770 20

NEW BRUNSWICK.

Agreement 1915-16.

1. Agricultural Schools—		
(*a*) Capital expenditure	$ 10,000 00	
(*b*) Salaries and maintenance	6,500 00	
		$ 16,500 00
2. Instructors, Directors, Superintendents and District Representatives—		
Salaries and expenses		18,000 00
3. Instruction and Demonstration—		
Bee-keeping	$ 500 00	
Silos and drainage	3,000 00	
Horticulture	500 00	
Short courses	1,000 00	
		5,000 00
4. Women's work		3,000 00
5. Bulletins, reports, circulars and miscellaneous printing		500 00
6. Instruction in Public, High and Normal Schools in Agriculture, Nature Study and Domestic Science, training of teachers and school gardens		10,000 00
7. Contingencies and miscellaneous		1,308 40
Total		$ 54,308 40

Agricultural Schools.

July, 1915, witnessed the opening of the Agricultural School at Sussex, described in the previous report. The cost of the building is being met entirely from the grant, as is also the expenditure necessary for salaries and maintenance, furniture and equipment, both for the Fisher School at Woodstock and also for the Sussex School. Both these schools have already been described in detail but a summary of their cost to date is presented.

Sussex School—(Construction, equipment and furnishings)—		
Amount charged in 1913 and 1914	$ 18,607 11	
Amount charged in 1915 and 1916	17,748 46	
		$ 36,355 57
Woodstock School—(Equipment and furnishings)—		
Amount charged in 1913 and 1914	$ 3,913 12	
Amount charged in 1915 and 1916	551 91	
		4,465 03
Microscopes and Laboratory equipment, Woodstock and Sussex		1,068 65
Total		$ 41,889 25

The charges for salaries and maintenance have been as follows:—

Woodstock, 1913 and 1914	$ 2,358 42	
Woodstock and Sussex, 1915-16	5,647 01	
		8,005 43
Total charges Agricultural Schools		$ 49,894 68

The two Agricultural Schools referred to are not, however, the only buildings that have been either constructed or equipped with the funds provided by the grant. The expenditure of previous years included part cost of construction of the dairy school at Sussex, and the cost of equipment, furnishings and maintenance of both

the Sussex and St. Hilaire Dairy Schools, the outlay amounting to the sum of $5,086. From this it will be seen that the total charge against the grant on account of buildings, furnishings, equipment, salaries and maintenance up to the present time, in connection with the Agricultural Schools and Dairy Schools, amounts to the sum of $55,880.68.

It is the intention to present a regular course of instruction at both Agricultural Schools. To this end, plans were well under way, but on account of the enlistment of the Director, Mr. R. Newton, and two of his assistants, B. T. Reed and W. D. Ford, together with the fact that many young men from the farms are joining the colours, it was concluded to leave the organization of the schools until after the war. The buildings are utilized at present for the holding of farmers' short courses, household science courses and summer and winter science courses for teachers. Apart from these courses, the buildings are occupied during the entire year as offices and headquarters for certain members of the staff whose work is conveniently conducted from these centres. At the Sussex School, Mr. R. P. Steeves, the Director of Elementary Agricultural Education and his assistants have their headquarters.

Agricultural Teaching in Schools.

($10,280.)

The third year of rural science work in New Brunswick, under supervision of a director, has now been concluded. Previous to 1913, a nature study course was authorized and special grants were paid for school gardening. The passing of the Agricultural Instruction Act opened the way for an advance movement. A director was appointed and the necessary finances were provided by the grant thus relieving the province of any financial obligation in connection with the work associated with his office.

In the working out of the undertaking, rural science schools for giving special training and instruction to teachers have been established, and a nature study and agriculture course has been prescribed for use in all elementary schools. In addition, equipment for experimental teaching has been installed in many schools, school-garden libraries have been procured and instructive pamphlets and circulars distributed. School gardens or home plots have become general, the school fair idea has been inaugurated with apparent success, and an attempt is being made to make the school an influence towards community improvement.

During the year eighty school gardens were in operation, and 378 supervised home plots were conducted as against 59 the year previous. The number of pupils receiving instruction in nature study and agriculture was 2,711 as compared with 1,355 in 1914. In order to stimulate a competitive spirit, three garden prizes were offered in each county, of $3, $6 and $9 respectively, one-third going to the teacher and two thirds to the district to be expended on special equipment. Ten counties took part in the competition.

To qualify teachers for giving instruction in nature study and agriculture, two summer courses of four weeks' duration were provided, one at the Fisher Vocational School at Woodstock and the other at the new Agricultural School at Sussex. It was found impossible to accommodate the entire number of applicants, but 65 were admitted at Woodstock and 115 at Sussex.

In January of 1916, an additional course for teachers was presented at the Sussex Agricultural School to deal with certain difficulties met with by teachers in presenting these subjects. This course lasted one week, with 107 teachers in attendance; but many had to be refused for lack of accommodation. Lectures were delivered by specialists from other provinces and from the Dominion Department in

addition to the provincial officers and instructors. In the opinion of those responsible for the course it not only served to draw public attention to the value of nature study and to the relation of education to the practical affairs of life, but, in addition, it clearly demonstrated that the teachers are anxious to qualify for giving this form of instruction.

School Fairs.

School fairs have been undertaken only on a limited scale as yet, but the success met with promises a considerable extension of the work. Prizes were provided, contingent in a measure on the amount raised locally. These included not only prizes for the products of school gardens and home plots, but for related school room work. What may be called the first school fair in New Brunswick was held in the Cloverdale district in September, 1915. The afternoon was given up to an examination of the grounds and garden and the school building and equipment, followed by a luncheon for those present. In the evening at the public hall near by a programme in which the pupils largely participated was presented, and the prizes were awarded to the successful fair competitors; the whole forming what was in reality a community progress day. It is believed that the inauguration of the school fair will be a logical outcome of the increase in school and home gardens, school clubs and local improvement circles, all helping to create a sentiment among the people that rural school should train pupils for country life and rural development.

Household Science, $685.

Under the section relating to Agricultural Instruction in Schools the necessary funds are provided to meet the expenses of the courses in Household Science held annually, at Sussex and Woodstock. The dates were, Sussex, February 1st to 11th and February 15th to 25th; Woodstock, February 29th to March 10th, and March 14th to 24th. The average attendance at each of the four courses was twenty-three regular students, this, on account of the war, being smaller than was anticipated.

Besides the subjects taken up last year a new class in Arts and Crafts was introduced and proved very popular. Written examinations in the theory of cooking and home nursing, a test in hand sewing, and judging quality and originality of the work in handicraft were new features. Prizes of from $5 to $20 were awarded.

Women's Institutes, $2,838.

There are at present eighty Women's Institutes in the province, an increase of eighteen since the previous year. The membership now stands at 2,353 as against 2,000 a year ago. Because of the existence of numerous patriotic societies, the organization of new institutes was allowed to remain somewhat in abeyance; nevertheless, Madawaska is the only county in which no organization has been effected.

During the Institute year, closing July 31st, 1916, 861 regular meetings and 171 Red Cross meetings were held, with a total attendance of 12,373. At these meetings 626 papers were read and addresses delivered. The cost of the work is financed entirely by the Dominion grant, including an annual grant of five dollars to each institute.

INSTRUCTION AND DEMONSTRATION.

Short Courses, $913.

The courses here referred to are the courses in general agriculture, designed for farmers and farmer's sons. The special courses for teachers and the courses in household science, having already been described in connection with the work coming under the supervision of the educational authorities, are not included with the above.

The following is a statement of the agricultural courses held during the year:

Sussex Agricultural Institute, January 11th to 21st; subjects, poultry and bee-keeping, weed control, dairying, entomology, field husbandry, animal husbandry. Four illustrated evening lectures were given. An exceptionally good course in field crops and live stock was given during the last five days. The course opened with an attendance of 24, but this number was not maintained, and the course was not taken advantage of to the extent expected.

Woodstock Agricultural School.—Two weeks' general course, with special attention to field-crops and live stock, and including a two days' potato growers' convention, was held from March 20 to 31. The attendance at the course ran between twenty and forty.

Bathurst course: A three day course in general agriculture was held at Bathurst from December 14 to 16. The total registered attendance was one hundred and eighteen.

St. Hilaire Dairy School.—Four days' general course, April 11 to 14. This course was particularly successful, the attendance at no time falling below forty, and as many as 250 were present at some of the evening sessions.

In addition to short courses, officers of the Department of Agriculture held some sixty meetings during November and December, giving illustrated addresses on various phases of farming.

Soil and Drainage, $2,989.

This comprised, as in previous years, the demonstration of a ditching machine in connection with under-drainage and of a limestone pulverizer. Both these undertakings were described in last year's report (page 131). Under-drainage was demonstrated on fifteen farms and 1,850 rods of tile were laid during the year, while the pulverizer was operated in various parts of the province, on the basis of cost to the farmers.

Dairying, $6,660.

Three dairy superintendents who are members of the Departmental staff are provided by the grant, and also a milk-tester. The superintendents undertake the supervision of all creameries and cheese factories, visit individual farmers, attend meetings of agricultural societies and instruct at short courses.

Animal Husbandry, $780.

The salary and expenses of a field instructor in live stock are charged to the grant. This officer visits individual farmers giving instruction as to the selection, feeding and breeding of live stock, and supervises the work carried on by the Department. Owing to the enlistment of the instructor, Mr. W. D. Ford, this work was subsequently taken over by the Dairy Division.

Poultry Division, $1,660.

The salary and expenses of the poultry superintendent are charged. This officer instructs at short courses, organizes poultry competitions among young people, conducts poultry fattening demonstrations and attends agricultural society gatherings.

Horticulture, $5,308.

The grant provides for a horticulturist and two assistants. Their work embraces (1) the supervision of demonstration orchards set out by the Department during the last few years, (2) the operation of four old orchards as illustrations of orchard renovation, and (3) short course work.

In response to demands for instruction in pruning and grafting, men are sent to individual orchard owners to illustrate the work. This phase of the work has increased one hundred per cent in three years.

Bee-keeping and Fertilizers, $1,965.

An instructor in soil fertility and bee-keeping is provided, and is doing much to stimulate honey production and to improve apiary methods. This officer gives instruction through the agricultural societies in the mixing and proper use of chemical fertilizers.

Entomology, $1,168.

The provincial entomologist assists in school agriculture and instructs at short courses. Through his efforts the children of the rural schools have been widely taught to identify the Brown-tail and Gypsy moths. A stenographer and other office expenses are charged.

Agricultural Societies, $1,808.

This sum provides the salary and expenses of the superintendent of agricultural societies who has the supervision of 126 such organizations in the province.

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APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

Officers, regularly employed, whose salaries are paid wholly from the Agricultural Instruction grant:—

Superintendent of Dairying and Live Stock, J. W. Mitchell, Fredericton.
Provincial Horticulturist, A. G. Turney, B.S.A., Fredericton.
Dairy Superintendent, C. W. McDougall, Sussex.
Assistant Dairy Superintendent, N. W. Eveleigh, Sussex.
Poultry Superintendent, Seth Jones, Sussex.
Instructor in Fertilizers and Bee-keeping, H. B. Durost, B.S.A., Woodstock.
Entomologist, Wm. McIntosh, St. John.
Superintendent Agricultural Societies, J. E. DeGrace, Petit Rocher.
Director Elem. Agricultural Education, R. P. Steeves, M.A., Sussex.
Assistant Director Elem. Agricultural Education, Victor B. Robinson, B.S.A., Sussex.
Supervisor Women's Institutes, Hazel E. Winter, Fredericton.
Instructor in Household Science, Ada B. Saunders, Fredericton.

The following, having enlisted for overseas service, are not now under pay, but their positions are being held open for them for one year:—

R. Newton, B.S.A., Director Agricultural Schools and Field Husbandman.
W. D. Ford, B.S.A., Animal Husbandman, killed in action.
D. B. Flewelling, B.S.A., 2nd Assistant Horticulturist.
L. C. D'Aigle, Dairy Superintendent.
B. T. Reed, B.S.A., Assistant Field Husbandman.

NEW BRUNSWICK.

GRANT, 1915-16, $54,308.40—SUMMARY STATEMENT, APRIL 1, 1915, TO MARCH 31, 1916.

No.	Classification.	Grant 1915-16.	Balance April 1, 1915.	Net Total.	Expended to March 31, 1916.	Balance March 31, 1916.	
						Unexpended.	Overexpended.
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
1.	Agricultural Schools—						
	Capital	10,000 00			19,373 02		
	Salaries and Maintenance	6,500 00	6,714 76	9,785 24	5,647 01		15,234 79
2.	Instructors, Directors and Superintendents	18,000 00	1,571 70	19,571 70	18,224 04	1,347 66	
3.	Instruction and Demonstration	5,000 00	640 92	4,359 08	4,988 77		629 69
4.	Women's Work	3,000 00	431 88	3,431 88	2,838 02	593 68	
5.	Bulletins and Reports	500 00	109 58	390 42	231 10	159 32	
6.	Agriculture in Schools	10,000 00	2,091 67	12,091 67	10,937 41	1,154 26	
7	Contingencies and Miscellaneous	1,308 40	1,228 92	2,537 32	1,318 61	1,218 68	
						*11,390 70	
	Totals	54,308 40		52,167 31	63,558 01	15,864 48	15,864 48

* Dr. balance.

1. DETAILS OF EXPENDITURE, APRIL 1, 1915, TO MARCH 31, 1916.

AGRICULTURAL SCHOOLS.

Grant, 1915-16—		
Capital	$ 10,000 00	
Salaries and maintenance	6,500 00	
Balance, April 1, 1915—		
(*a*) Agricultural schools	.....	$ 6,378 65
(*b*) Dairy schools	.....	417 51
(*c*) Teachers, Agricultural schools	81 40	
Expended to March 31, 1916—		
Capital	.....	19,373 02
Salaries and maintenance	.....	5,647 01
Balance overexpended March 31, 1916	15,234 79	—
Total	$ 31,816 19	$ 31,816 19

Capital Account.

Sussex School—		
W. F. Lutz, balance of contract	$ 11,032 00	
" extras	3,105 32	
Globe Furniture Co., furniture	550 00	
Electrical equipment	1,576 67	
Knox Electrical Co., heating contract	125 00	
Furnishings	256 27	
G. E. Fairweather, Architect	1,103 20	
		$ 17,748 46
Woodstock School—		
Furniture	$ 131 02	
Grounds improvement	121 40	
Miscellaneous equipment	303 49	
		555 91
Microscopes and Laboratory equipment, Woodstock and Sussex		1,068 65
Total		$ 19,373 02

Salaries and Maintenance.

R. Newton, Director Agricultural schools, etc., salary, $1,266.67, expenses, $192.47		$ 1,459 14
B. T. Reed, Assistant Field Husbandry, salary, $1,150, expenses, $472.45		1,622 45
F. D. Plummer, Janitor		500 00
Thos. Ellison, "		406 98
Maintenance and supplies		1,676 39
		$ 5,654 96
Less refund		7 95
Total		$ 5,647 01

2. Instructors, Directors and Superintendents.

Grant, 1915-16	$ 18,000 00	
Balance "Travelling Instructors" April 1, 1915	1,571 70	
Expended to March 31, 1916	.....	$ 18,224 04
Balance unexpended March 31, 1916	.....	1,347 66
Total	$ 19,571 70	$ 19,571 70

	Salary.	Expenses.	
W. D. Ford, Animal Husbandman	$ 583 34	$ 196 35	$ 779 69
N. W. Evelelgh, Asst. Dairy Supt	1,400 02	616 77	2,016 79
C. W. McDougall, Dairy Supt	1,500 00	562 72	2,062 72
L. C. D'Aigle, "	1,375 00	900 96	2,275 96
Seth Jones, Poultry Supt	1,200 00	454 94	1,654 94
A. G. Turney, Horticulturist	1,650 00	270 62	1,920 62
R. P. Gorham, Asst. Horticulturist	1,200 00	374 60	1,574 60
D. B. Flewelling, Asst. Horticulturist	825 00	239 63	1,064 63
H. B. Durost, Bee and Fertilizer Instructor	1,141 68	822 85	1,964 53
Wm. McIntosh, Prov. Entomologist	600 00	85 64	685 64
J. E. DeGrace, Supt. Agricultural Societies	1,070 82	737 32	1,808 14
Wm. Kerr, Services Milk Tester	180 00	124 30	304 30
Chas. E. Sheridan, Inspector, potato diseases	200 00	181 70	381 70
Ethel McKee, Stenographer	247 00	.....	247 00
Supplies and incidentals, chiefly Entomological			235 57
		$	18,976 83
Less transfers and refunds			752 79
Total		$	18,224 04

All the above, in addition to carrying on the special work in which they are engaged, act as instructors at short courses and as travelling lecturers.

3. Instruction and Demonstration.

Grant, 1915-16	$ 5,000 00	
Balances, April 1, 1915		
Short courses	715 00	
Instructors	.....	$ 1,098 61
Demonstration trains	1 11	
Drainage	.....	481 78
Bee-keeping	319 44	
Expended to March 31, 1916	.....	4,818 77
Balance, overexpended, March 31, 1916	828 88	
Total	$ 6,148 17	$ 6,148 17
(a) Bee-keeping—		
Morley Pettit, services and expenses	$ 94 20	
Supplies and incidentals	244 91	
		$ 339 11

3. Instruction and Demonstration—*Concluded.*

(*b*) Soil and drainage—		
Services and expenses, engineers, foremen, surveyor (pulverizer and ditcher)	$ 2,734 93	
Supplies, repairs, incidentals	1,808 51	
	$ 4,543 44	
Less refunds	1,554 24	$ 2,989 20
(*c*) Horticulture—		
Sundry persons, services and expenses pruning and grafting		748 35
(*d*) Short Course Work—		
Advertising, printing, supplies and miscellaneous expenses.		913 11
Total		$ 4,988 77

4. Women's Work.

Grant, 1915-16	$ 3,000 00	
Balances, April 1, 1915—		
Women's Institutes	276 28	
Domestic Science	155 60	
Expended to March 31, 1916	.....	$ 2,838 02
Balance, unexpended, March 31, 1916	.....	593 86
Total	$ 3,431 88	$ 3,431 88
Miss Hazel E. Winter, Supervisor, salary $670.84; expenses, $99.58		$ 770 42
Miss Imogene Jonah, salary $300; expenses $181.69		481 69
Lecturers and organizers, services and expenses		651 66
Expenses Convention delegates		176 28
Prizes		40 00
Grants of $5 to 76 institutes		380 00
Equipment, supplies and incidentals		512 32
		$ 3,012 37
Refunds		174 35
Total		$ 2,838 02

5. Bulletins and Reports.

Grant, 1915-16	$ 500 00	
Balance, April 1, 1915	.....	$ 109 58
Expended to March 31, 1916	.....	231 10
Balance, unexpended, March 31, 1916	.....	159 32
Total	$ 500 00	$ 500 00
Spraying and fertilizer leaflets		$ 42 00
Poultry Bulletin		96 00
Insect Bulletin		28 50
Nature study leaflets		24 60
Envelopes		40 00
Total		$ 231 10

6, Agriculture in Schools.

Grant, 1915-16	$ 10,000 00	
Balances, April 1, 1915—		
"Elementary Agricultural Education"	712 49	
"Training Teachers"	.....	$ 216 40
"Domestic Science Teachers"	177 80	
"School Gardens"	1,417 78	
Expended to March 31, 1916	.....	10,937 41
Balance, unexpended, March 31, 1916	.....	1,154 26
Total	$ 12,308 07	$ 12,308 07

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AGRICULTURE IN SCHOOLS—*Concluded.*

R. P. Steeves, Director Elementary Agricultural Education, salary $1,800, expenses $580.11	$ 2,380 11
Services of Instructors in Special Courses—	
Domestic Science, Animal Life, Soil Physics, School Gardening—Woodstock and Sussex	1,500 65
Refunded railway fares	599 [illegible]
Bonuses for attending Science Schools, 57 at $20	1,140 00
Grants to secretaries, teachers, trustees *re* Nature Study	3,497 83
Prizes for school gardens	147 00
Grants to inspectors, Rural Science School	140 00
Seeds, eggs, supplies, stationery, advertising, furnishing and miscellaneous	847 32
	$ 10,279 71
Services and expenses, Domestic Science courses—sundry persons	751 35
Prizes, Domestic Science course	60 00
Supplies, Domestic Science course	73 41
	$ 10,964 47
Refund	27 06
Total	$ 10,937 41

7. CONTINGENCIES AND MISCELLANEOUS.

Grant, 1915-16	$ 1,308 40	
Balances, April 1, 1915—		
"Transportation"	272 18	
"Contingencies"	776 40	
"Agricultural Aid Act"	180 34	
Expended to March 31, 1916	.....	$ 1,318 [illegible]
Balance, unexpended, March 31, 1916	.....	1,218 [illegible]
Total	$ 2,537 32	$ 2,537 32
Office assistance, Woodstock and Sussex		$ 611 [illegible]
Railway fare, agricultural students		444 [illegible]
Postage, stationery and incidentals		262 [illegible]
Total		$ 1,318 64

Office assistance, postage, stationery, etc.: Stenographic assistance and other disbursements of Director of Elementary Agricultural Education, Dairy and Poultry Superintendent, who have offices either at the Woodstock or Sussex school.

Railway fares of students attending Provincial short courses and also the regular course at any agricultural college in the Dominion.

NEW BRUNSWICK.

COMPARATIVE STATEMENT OF EXPENDITURE OF PROVINCIAL FUNDS FOR AGRICULTURAL PURPOSES FOR THE YEARS 1913, 1914 AND 1915, AND APPROPRIATIONS FOR 1916.

Service.	1913 to October 31.	1914 to October 31	1915 to October 31	1916 to October 31 Appropriations.
	$ cts.	$ cts.	$ cts.	$ cts.
Salaries and Expenses Department	6,499 68	7,019 06	7,945 44	10,358 00
Agricultural Societies	16,867 66	17,444 83	17,000 00	17,000 00
Dairying	4,092 28	3,039 53	6,477 85	6,300 00
Live Stock Industries	950 45	3,611 78		
Dairy School	537 03	4,067 99	738 05	1,000 00
Farmers' Institute	1,048 96			
Horticulture	4,155 67	1,999 37	1,997 26	1,500 00
Cold Storage	750 00			
Assistance to Scholars				
Poultry Raising	1,984 94	980 08	1,245 57	1,500 00
Crop Competitions, Seed Fairs	1,869 44	2,082 77	3,398 16	3,000 00
Exhibitions			9,824 87	10,000 00
Miscellaneous	309 59	355 00	1,944 11	2,500 00
Brown Tail Moth, etc	999 51	4,481 93	3,754 45	3,650 00
Bonus Mud Dredges		1,000 00	519 90	500 00
Bonus Clover Hullers			600 00	
Advertising Natural Products				
Limestone crusher and power			1,895 00	500 00
Farm Settlement Board			862 48	1,500 00
Bonus to Wheat Mills				2,500 00
Total	40,005 21	46,082 34	58,203 14	61,808 00

PRINCE EDWARD ISLAND.

AGREEMENT, 1913-16.

1. Capital Account—Equipment of offices of instructors, domestic science kitchens and laboratories	$ 4,000 00
2. Director of Agricultural Instruction and Instructors	6,475 00
3. Instruction and demonstration (including Short Courses in Live Stock, Poultry, Bee-keeping, Horticulture and Fruit Growing	2,400 00
4. Women's work	2,890 00
5. Instruction in Public and High Schools	11,791 14
6. Office assistance	1,500 00
7. Miscellaneous and contingencies	82 14
Total	$ 29,138 28

Previous to the passing of the Agricultural Instruction Act, very little work of an educational character in relation to agriculture had been attempted in Prince Edward Island, apart from that undertaken by the Dominion Department of Agriculture. The work of this nature now being carried on is financed entirely from the funds provided by the Act.

In the spring of 1915, W. R. Reek, B.S.A., formerly Associate Professor of Animal Husbandry at the Ontario Agricultural College, was appointed Director of Agricultural Instruction for the province, and given general supervision of the work. The conclusion was then reached to discontinue the four months' course in agriculture at Charlottetown. Hitherto, Professor W. J. Reid, B.S.A., and Professor J. Leslie Tennant had devoted one-third of their time to instruction work in connection with this course, and the balance to the duties of district representatives, which included the holding of short courses, demonstrations, etc. Messrs. Reid and Tennant will now be enabled to devote their whole time to district representative work. They represent Prince county and King's county respectively, and their office and headquarters will be at Summerside and at the Agricultural Hall, Charlottetown.

Capital Expenditure, $4,000.

The agricultural halls at Charlottetown and Summerside had been purchased and partly reconstructed in previous years with Dominion funds. They provide the accommodation necessary for courses in agriculture and domestic science and for farmers' meetings and conventions. In 1915 it was found necessary to provide office accommodation in the Charlottetown building for the district representatives, and also for the Women's Institute Branch, including an adequate kitchen for short course work. In the Summerside building enlarged office accommodation was arranged for, and facilities were provided for seed judging work. This and repair work made necessary the expenditure of upwards of three thousand dollars in labour and materials, while for office equipment, including furniture, typewriters, etc., the sum of $742 was spent. Altogether the total cost of these buildings to date has been $15,531. Before these improvements were fully completed, however, both halls were handed over to the military authorities and are occupied by them at the present time.

Instruction and Demonstration (Salaries and General Disbursements $12,221).

SHORT COURSES: Short courses were held in January, February and March at such points as were considered suitable. All those engaged in agricultural work upon the Island took part, including Dominion and Provincial officers, school inspectors and others. The number of sessions held was 91, the average attendance 85, and the total attendance 7,735. Live stock, field husbandry, dairying, drainage and plant diseases

were the principal subjects dealt with. Part of the expense of the courses was met locally. One of these courses was held at Macdonald Consolidated School at Hillsboro, which had been closed for a number of years. It is interesting to note that this course proved to be the means of re-opening it for community work. The total attendance at this point was 1,064. During the course, a country club was formed, fifty-two new members were added to the Farmers' Institute, and the nucleus of a Women's Institute was organized, while closer co-operation between cheese and butter factories was promoted.

Drainage: In certain districts of the Island the need of drainage is very insistent. Approximately 200,000 acres require drainage in order to be worked successfully in an ordinary season. These lands are naturally very fertile and will repay the installation of systems of tile drainage. At the present time very few surface ditches are in existence, and practically no tile drainage is being done, principally because of the fact that tile had to be imported, and the price was consequently too high. During the year much attention was given by the Director and his assistants to this question. Investigation showed that the manufacture of cement tile was not feasible owing to difficulty in securing sand of the proper quality. Finally clay and sand suitable for the manufacture of tile were located near Richmond. This resulted in the formation of a company for the manufacture of tile, brick and other products.

To prove the value of underdrainage a demonstration was undertaken near Wellington, and four acres surveyed, ditched and tiled. As a result of the movement, a Drainage Act was passed by the Legislature, the first of its kind on the Island, in which provision is made for loans to assist in underdrainage.

Dairy Work: In January 1916, a conference was held to discuss dairy conditions. The maker and a representative from every factory were invited to attend, and their expenses were paid.

Resolutions were passed and forwarded to the Dairymen's Association of the province recommending (1) the appointment of a provincial inspector and instructor to work among factories, whose salary and expenses should be provided by the grant; (2) the enactment of legislation relating to inspection work and factory operation, and (3) that the Maritime Provinces co-operate in establishing a course for cheese and buttermakers at Truro, N.S. These resolutions received the endorsation of the Association.

Co-operative Marketing: With the assistance of the Dominion Department of Agriculture, the first co-operative wool sale was organized in 1915 and successfully carried out, with Summerside as the centre of operations. About 5,500 pounds of wool were gathered, graded by an expert and sold. Owing to the season being late before the work commenced it was found impossible to cover all the districts where sheep were kept. This work was carried on by the District Representatives who called upon or corresponded with farmers engaged in sheep raising, assisted in keeping records, grading, packing, shipping, etc. The co-operative selling of lambs was also encouraged.

Subsequently organizations were formed, chiefly in the western part of the Island, to take charge of gathering and shipping of wool to the grading station, to promote the purchase and joint ownership of pure-bred rams and better methods of management. This work has already proved of considerable benefit to the sheep industry.

School Agriculture, $13,668.

During the summer of 1915, the services of Professor S. B. McCready of Guelph, were secured to organize a Rural Science Department at Prince of Wales College for training of teachers in Elementary Agriculture. Professor McCready states in his report that, owing to the liberal allowance made from the funds available through the Agricultural Instruction Act, it has been possible to provide first-class equipment, including special laboratory furniture and fittings. Science books valued at

about $200 were purchased, and the leading agricultural publications subscribed for. The expenditure, which amounts to $1,600, also includes apparatus and material for teaching, such as lantern and screen, slides, charts, balances and scales, soil and weather apparatus, incubator and poultry and bee-keeping accessories. Besides the indoor arrangements plans were made for model school gardens, embodying such features as might be used at rural and town schools.

The issue of a school circular or bulletin was begun in February and will be continued from time to time. This will set forth the general plans for introducing Rural Science, and will assist in enlightening, not only the active teaching body, but also the general body of school supporters as to the methods and possibilities of the work. Besides the circulars a commencement has been made in holding meetings in the country and giving illustrated talks on the subject of school improvement.

The practice of holding a summer school for teachers at Charlottetown was continued in July, and lasted two weeks. Three hundred and sixty attended. A normal course for inspectors was also presented. The railway fares and other expenses are met from the grant.

The teaching staff for this course consists of members of the faculty of Prince of Wales College, of the staff of the Department of Agriculture, and several specialists from other provinces and the United States, and the subjects taught comprise Nature Study, Botany and School Gardening.

As in previous years bonuses were offered to teachers who took up school and home gardening. One hundred and sixty-seven school gardens and 2,506 home projects were conducted, and bonuses amounting to $2,737 were distributed among 289 teachers. It is anticipated that the work of the Rural Science Department at the college will gradually place school agriculture on a substantial basis.

Favourable results have been received from every quarter where rural science teaching has been introduced. Home project work was carried on to a much greater degree than was anticipated, and interest is reported to be increasing, not only among the children but also among the parents. It is anticipated that the work of the Rural Science Department will result in teachers securing the equipment necessary to teach intelligently and systematically and the hope is expressed that the movement will strengthen the bond between home and school, result in better schools, and tend to make country life more pleasant and farming more profitable.

Women's Work ($3,993).

This work is presided over by Miss Hazel L. Stearns, as supervisor, and two assistants, and has been of rapid growth. At the present time there are from 35 to 40 active institutes with a total membership of about 700. The activities of this organization reach the school, church, and the various patriotic movements, as well as the home. The institutes have continued to be very active in the Patriotic and Red Cross movements and have contributed liberally both in money and goods.

The movement for improvement in the school house and its surroundings has resulted in the schools being renovated in many districts. On the installation of water tanks, sanitary drinking cups, new seats and desks, school libraries and general repairs the sum of about $700 was expended, this having been raised specially for the purpose. The institutes have also been instrumental in securing the lighting of public halls, the starting of a public library, while encouragement has been given by the supervisors to the making of exhibits at fall fairs and seed fairs.

As in the two previous years, courses in household science were held during January, February and March, at Prince of Wales College. Each of these was of two weeks' duration, and they were open to women and girls of the rural sections. The attendance was 155. The courses were in charge of the supervisor, and the lectures were given by the institute staff and members of the Departmental staff. Those attending received railway fare and a grant of $1 each.

APPOINTMENTS PROVIDED BY THE DOMINION GRANT.

Director of Agricultural Instruction, W. R. Reek, B.S.A.
District Representative, Prince County, W. J. Reid, B.S.A.
" Queens County, W. R. Shaw, B.S.A.
" Kings County, M. H. Coughlan, B.S.A.
Soil and Seed Specialist, Leslie Tennant, B.S.A.
Director of Rural Science Department, Prince of Wales College, J. E. McLarty, B.S.A.
Supervision of Women's Institutes, Miss Hazel Stearns.
Assistant Supervisor of Women's Institutes, Miss Alberta McFarlane.
" " " " Miss A. Gordon.
Director of Agricultural Instruction in Public Schools, Wm. Cain.
" " " " " Walter Curtis.
" " " " " D. S. Fraser.
" " " " " L. A. Adams.
Accountant, Miss A. W. Newbery.
Stenographer, Miss F. Murdock.
" Miss Bessie Aylward.

PRINCE EDWARD ISLAND.

GRANT OF 1915-1916—SUMMARY STATEMENT APRIL 1, 1915, TO MARCH 31, 1916.

No.	Classification.	Grant 1915-16.	Grant as amended.	Balance Forward Apr. 1, '15.	Total.	Expended Apr. 1, '15 to Mar. 31, '16	Balance on hand Mar. 31, '16
		$ cts.	$ cts.	$ cts.	$ cts.	$ cts	$ cts.
1	Capital Account— Instructors' Offices Domestic Science equipment	4,000 00	4,000 00	.....	4,000 00	4,000 00	
2	Instructors, Directors, Superintendents and District Representatives	6,475 00	6,475 00	2,334 32	8,809 32	8,809 32	
3	Instruction and Demonstration— (1) Live Stock 2,500 (2) Poultry 300 (3) Beekeeping 100 (4) Horticulture 500	3,400 00	2,400 00	1,270 06	3,670 06	3,411 99	258 07
4	Women's Work	3,190 00	2,890 00	1,122 26	4,012 26	3,922 79	89 47
5	Agricultural Instruction in High and Public Schools	10,050 00	11,791 14	1,877 22	13,668 36	13,665 35	3 01
6	Office Assistance	1,500 00	1,500 00	69 30	1,569 30	1,551 67	17 63
7	Miscellaneous and Contingencies	523 28	82 14	.....	82 14	82 14	.....
	Total	29,138 28	29,138 28	6,673 16	35,811 44	35,443 26	368 18

1. CAPITAL ACCOUNT.

Grant, 1915-16	$ 4,000 00	
Expended to March 31, 1916		$ 4,000 00
Instructors' Office Equipment—		
2 typewriters		$ 270 00
Books		111 18
Furniture		342 43
Office supplies		17 79
Labour and materials		3,257 60
Total		$ 4,000 00

2. INSTRUCTORS, DIRECTORS, SUPERINTENDENTS AND DISTRICT REPRESENTATIVES.

Grant, 1915-16	$ 6,475 00	
Balance April 1, 1915, District Representatives	2,334 32	
Expended to March 31, 1916		$ 8,809 32
Total	$ 8,809 32	$ 8,809 32
Salaries and Expenses—		
W. R. Reid, Director Agricultural Instruction		$ 2,084 00
W. J. Reid, District Representative, Prince Co.		2,043 30
J. L. Tennant, District Representative, Kings Co.		1,454 79
W. H. Coughlin, Assistant Representative		473 33
Walter Shaw, "		398 97
Richard Creal, "		417 92
T. Ross, expenses		216 60
General expense		327 41
Total		$ 8,809 32

3. Instruction and Demonstration.

Grant, 1915-16	$ 2,400 00	
Balances April 1, 1915—		
"Short Courses"	527 23	
"Judging Classes"	503 17	
"Demonstration"	239 66	
Expended to March 31, 1916	.....	$ 3,411 99
Balance on hand March 31, 1916	.....	258 07
Total	$ 3,670 06	$ 3,670 06
Supplies, labour, materials, incidentals, including Long and Short Course charges		$ 2,123 68
Typewriter		130 00
Services and Expenses—		
David Shurman, Horticultural work	$ 275 00	
W. Davison, Instructor in Field Husbandry	457 77	
Jas. Landrigan, Instructor in English	150 00	
J. H. Blanchard, School Inspector	100 00	
Sundry persons	159 96	
		1,142 73
Fares Dairy Convention		68 85
		$ 3,465 26
Less refunds		53 27
Total		$ 3,411 99

4. Women's Work.

Grant, 1915-16	$ 2,890 00	
Balance April 1, 1915—		
"Women's Institutes"	1,122 26	
Expended to March 31, 1916	.....	$ 3,922 79
Balance on hand March 31, 1916	.....	89 47
Total	$ 4,012 26	$ 4,012 26
Salaries and Expenses—		
Mrs. Dunbrack, Supervisor	$ 430 05	
Miss Hazel L. Stearns, Supervisor	759 41	
" A. McFarlane, Assistant	701 39	
" Helena McDonald, Assistant	138 70	
" Adele Gordon, Assistant	150 00	
Sundry persons travelling	246 80	
		$ 2,426 35
Supplies, printing, incidentals		602 09
Scholarships and railway tickets, Short Course		719 35
Women's Institute grants		175 00
Total		$ 3,922 79

Mrs. Dunbrack resigned in September, 1915, and Miss Helena MacDonald at the end of June, and the vacancies were filled by Miss Stearns and Miss McFarlane.

5. Agricultural Instruction in Public and High Schools.

Grant, 1915-16	$ 11,791 14	
Balances April 1, 1915—		
(1) Prince of Wales College	1,012 31	
(2) Nature Study	868 91	
Expended to March 31, 1916	.....	$ 13,665 35
Balance on hand March 31, 1916	.....	3 01
Total	$ 13,668 36	$ 13,668 36

5. AGRICULTURAL INSTRUCTION IN PUBLIC AND HIGH SCHOOLS—*Concluded.*

Salaries and Expenses—		
Leslie Adams, School Inspector		$ 1,005 00
D. S. Fraser, "		1,018 20
W. E. Curtis, "		1,005 35
Wm. Cain, "		999 90
S. B. McCready, Head Rural Science Department, Prince of Wales College		1,512 82
J. H. Blanchard, services		100 00
H. Dobie, "		216 69
G. McCarthy, "		174 66
Chas. Buxton, (enlisted) travelling expenses		105 90
Services and expenses of Inspectors taking over C. Buxton's work		453 15
Railway tickets		170 84
		$ 6,762 51
Supplies, labour, books, incidentals		637 53
Weather instruments		28 00
Furniture		554 05
Summer School for Teachers—		
Services of instructors, bonuses for attendance, railway fares,* and incidentals		3,323 38
Bonuses, Teachers, October to December		2,361 00
		$ 13,666 47
Less refund		1 12
Total		$ 13,665 35

* Six dollars off railway fare allowed each teacher taking the course.

6. OFFICE ASSISTANCE.

Grant, 1915-16	$ 1,500 00	
Balance April 1, 1915	69 30	
Expended to March 31, 1916	.....	$ 1,551 67
Balance on hand March 31, 1916	.....	17 63
Total	$ 1,569 30	$ 1,569 30

Salaries—	
A. W. Newbery	$ 486 67
N. J. McLeod	500 00
E. Pineau	280 00
Miss B. Alward	150 00
Miss Edith Prouse	60 00
J. Ross	75 00
Total	$ 1,551 67

7. MISCELLANEOUS AND CONTINGENCIES.

Grant, 1915-16	$ 82 14
Expended to March 31, 1916	$ 82 14

PRINCE EDWARD ISLAND.

COMPARATIVE Statement of Expenditure of Provincial Funds for Agriculture.

	1913 to Dec. 31	1914 to Dec. 31	1915 to Dec. 31	1916 Appropriations
	$ cts.	$ cts.	$ cts.	$ cts.
Farmers' Institutes	1,834 50	1,988 35	1,623 10	1,700 (a)
Field Competitions and Seed Fairs (net)	987 80	1,148 10	999 27	
Field Crops, Horticulture, Dairying and Poultry				3,000 (b)
Exhibitions, grants	6,387 00	8,079 31	10,768 30	
Associations, grants	1,361 80	1,247 60		
Exhibitions and Live Stock Judging				9,200 (b)
Miscellaneous, Dept. expenses	3,450 38	4,806 78	10,735 76	5,850 (b)
Totals	14,221 04	17,765 47	24,126 43	19,800 (b)